DEPARTMENT OF THE ARMY
U. S. ARMY DENTAL ACTIVITY
FORT CARSON, COLORADO 80913-5102

DENTAC Reg. 40-8 1 October 2001

PREVENTIVE MEDICINE
EXPOSURE CONTROL PLAN / INFECTION CONTROL PLAN

1. HISTORY. This issue publishes a revision of this publication.

2. PURPOSE. To implement current Office of the Surgeon General (OTSG) and U.S. Army Dental Command (DENCOM) Policy on Infection Control and Exposure Control. To provide a teaching, training, and operational guide for safe infection control practices at all dental facilities. The goal of any such program is to protect patients and staff by reducing potential pathogens and creating a barrier system to minimize exposure and cross contamination.

3. SCOPE. The provisions of this regulation are applicable to all personnel assigned or attached (including volunteers) to the Fort Carson Dental Activity. A simplified modification for Dental Inprocessing Centers (DIPC) and Clinical Examination Areas where no operative procedures are performed is described in appendix Q.

4. REFERENCES. See appendix A for references.

5. ABBREVIATIONS. Explanation of abbreviations and terms used in this regulation are found in the glossary (appendix B).

6. RESPONSIBILITIES. Infection Control is the obligation of all who work within U.S. Army Dental facilities. Direct responsibilities include:

a. Commander: Direct the establishment of infection control operating procedures commensurate with current regulations, guidelines, and directives of OTSG and DENCOM.

b. Deputy Commander or Chairman of the Quality Assurance (QA) Committee: Guides and monitors infection control practices within the dental command through the QA Program.

c. DENTAC Infection Control Committee Chairman / DENTAC Infection / Exposure Control Officer:

(1) Institute and revise, as necessary, the Infection Control and Exposure Control Plans.

(2) Serve as the commander's consultant in areas of infection control.

(3) Chair the Infection Control Committee (if one exists).

(4) Direct the monitoring of infection control at the clinic level.

(5) Receive status reports through committee input.

(6) Direct training to ensure safety and compliance with standards of infection control for all members of the DENTAC.

(7) Modify or extend procedures to meet the current governmental and professional guidance for infection control.

(8) Provide input on infection control practices to the QA Committee.

(9) Ensure investigation of all exposure incidents. Document the review and any recommendations through QA or Risk Management Committee.

(10) Represent Dental Unit on Hospital Infection Control Committee (AR 40-68).

d. Officers-in-Charge:

(1) Ensure personnel assigned to clinics are thoroughly knowledgeable concerning current infection control policies and procedures.

(2) Ensure that all assigned personnel follow current infection control and safety practices.

(3) Support the clinic Infection Control Officers in the performance of their duties.

(4) Classify all clinic personnel according to levels of risk of exposure as defined in OSHA guidelines (appendix D).

e. Clinic Sterilization and Infection Control Officer:

(1) Monitor and inspect all aspects of infection and exposure control procedures to ensure compliance, and submit a monthly clinic Sterilization / Infection Control report to the DENTAC infection control officer (appendix Y). Work closely with Officer in Charge to obtain their goals. Document monitoring and evaluation of work practice and engineering controls and adjust policies as needed.

(2) Train personnel regularly.

(3) Keep a training log in accordance with regulatory guidelines.

(4) Actively serve on the Infection Control Committee (if one exists) and provide information / support both to officer-in-charge (OIC) and the Chairman of the Infection Control Committee.

f. Clinic Non-Commissioned Officer-in-Charge (NCOIC):

(1) Ensure personnel are thoroughly knowledgeable with policies and procedures as they relate to infection control. Provide instruction as needed.

(2) Monitor and inspect procedures to ensure they are being carried out.

(3) Work with OIC and clinic Infection Control Officer to ensure compliance with policies and procedures.

(4) Maintain a listing of personnel which delineates clinic personnel into work categories according to OSHA guidelines.

g. Dental Laboratory Officer: Monitor and ensure compliance with clinical prosthodontic and laboratory infection control procedures (appendix L).

h. Dental Laboratory NCOIC: Monitor and practice all aspects of infection control in the dental laboratory setting. Ensure others using the laboratory are following recommended infection control practices (appendix L and P).

i. Clinic Dental Care Providers:

(1) Follow infection control procedures.

(2) Use standard-universal precautions and barrier techniques.

(3) Sterilize and maintain equipment in accordance with prescribed standards (TB Med 266).

(4) Obtain / maintain vaccinations against Hepatitis B (mandatory for all military and civilians hired after January 1997).

(5) Report through the appropriate supervisory chain all injuries involving sharps or other exposures to potentially infectious body fluids.

7. SAFETY.

a. Safety and Infection Control always go together.

b. Safety is important for all members of the Dental Care Team, but is also a must for the patients' protection.

c. Needle / sharps injuries are a major area for safety concern. Use of self sheathing needles is recommended. Use special care in handling and disposing of sharp items. If authorized to recap needles, never recap by hand. Cotton pliers are ideal for holding the needle cover during recapping, or use a scoop technique. Protect employees, patients and housekeeping personnel by always using the provided puncture resistant containers to dispose of needles / sharps. Should an injury occur, follow established protocols for obtaining proper treatment (appendix R).

d. Use extreme caution when disinfecting electrical equipment. Do not allow disinfectant liquids to flood internal aspects.

e. Accidents are preventable. Clear thinking and planning assist in assuring safety. Ask for clarification or instruction when in doubt.

8. INFECTION CONTROL. Infection control impacts on all personnel and all clinical and laboratory procedures. It is a complex topic. The basic goal of an infection control program is to prevent cross contamination between patients and health care providers (patient to health care worker, health care worker to patients, and patient to patient). Because any Standing Operating Procedure (SOP) for infection control must cover vast areas of information there is a potential for "information overload". This SOP will present a topographical overview of all aspects of Infection Control. Each area will be addressed briefly. Specific, more detailed, information will be presented by referring the reader to an appendix after each topical area has been addressed. It must be clearly understood that all personnel are responsible for all the information.

9. GLOSSARY. See appendix B for glossary.

10. RISK, SUSCEPTIBILITY, AND MODES OF TRANSMISSION. Diseases can be transmitted by blood and saliva. The mode of transmission may vary from direct sharp instrument injury (most implicated) to aerosols (least implicated) (appendix C).

11. CLASSIFICATION OF PERSONNEL AND TASKS. OTSG policy requires that all personnel working within the DENCOM be classified according to the level of risk of exposure to blood or other potentially infectious material (OPIM) that they are subject to while in the work environment. This requirement is in keeping with OHSA guidelines that require that tasks performed in dental clinics be evaluated and classified categorically (appendix D).

12. METHODS OF COMPLIANCE. Standard-universal precautions, engineering controls and work practice controls will be used to minimize or eliminate employee exposure to bloodborne pathogens. Appendix E-X describe these controls in detail. It is the responsibility of all key personnel to monitor these controls and identify changes that will improve employee protection.

a. Personnel hygiene (appendix E and F):

(1) Clothing - Wear a clean set of scrubs (clinic uniform) daily. Change if soiled. Protective over garments will be worn over scrubs, but other personal clothing should not be worn over protective over garments (e.g., sweaters).

(2) Hair - Hair should be short and neat. Long hair should be kept in a bun or otherwise restrained or covered. Hair may be covered if extended periods of exposure to body fluids is anticipated (e.g., aerosols).

(3) Jewelry - Do not wear jewelry on the hands or wrists while providing patient care or performing laboratory procedures.

(4) Handwashing - Wash hands before and after patient care, before eating and before leaving the clinic. Use antimicrobial soap. No bar soap should be used anywhere in the facility. Consult TB Med 266 for handwashing techniques.

b. Face masks (surgical masks), eye protection, and gloves. Surgical masks, protective garments and eye protection will be worn during patient care and clean up procedures, when spatter from contaminated materials is anticipated, and when hand piece maintenance procedures and specified laboratory procedures are being completed. Gloves will be changed between every patient. For those who are allergic to latex, refer to the latex allergy policies and recommendations located in appendix G. Surgical masks should be changed frequently as per appendix G guideline instructions. Eyewear must be cleaned between each patient. Face shields make excellent substitution for eye glasses but do NOT substitute for surgical masks when dealing with aerosols (appendix G).

c. Control of dental treatment aerosols. Even though much effort and time is devoted to the sterilization / disinfection of instruments and surfaces, it is also important to prevent the formation and spread of dental aerosols (appendix H).

(1) The use of three ten second rinses with an antimicrobial mouth wash has been shown to temporarily reduce oral microbe counts by 97 percent.

(2) Use a rubber dam whenever possible.

(3) Use high speed, high volume suction.

(4) Polish with rubber points and finishing burs, not bristle brushes.

(5) Hand scaling produces less aerosols than sonic or ultrasonic scalers.

(6) Wear proper personal protective equipment when working on all patients: Masks, gloves, gowns / smocks, and eye protection when splash is anticipated.

(7) Cover ultrasonic instrument cleaners while in operation.

(8) No eating or drinking in the laboratory or clinic operating areas. No smoking is allowed anywhere in the clinic.

d. Infection control for patient treatment (appendix I).

(1) There are many important aspects to infection control that need to be considered before, during and after patient care.

(2) Evaluate the medical status and history of the patient before treatment.

(3) Keep immunizations current. Hepatitis B immunization or acquired immunity is mandatory for military, and civilians hired after January 1997.

(4) Follow prescribed procedures. Prescribed engineering and work practice controls are present for the protection of both the patient and the employee.

(5) Sterilize and / or disinfect surfaces and equipment as described in appendix J. (TB Med 266, 31 May 1995).

e. Sterilization of handpieces, scaler tips and three-way air/water syringe tips.

(1) Sterilization of handpieces, three way air/water syringe tips and scalers or scaler tips is mandatory. It is extremely important that the manufacturers instructions are followed to the letter. NO MAINTENANCE STEP SHOULD EVER BE OMITTED, especially lubrication requirements. Failure to properly maintain handpieces that are sterilized represents failure in job performance, is potentially very costly, and could result in a compromised dental mission. It is understood that increased maintenance requirements will take time to perform to the high level of excellence required to keep sterilized handpieces operating effectively.

(2) Handpiece sterilization policy:

(a) All high speed handpieces will be sterilized between patients by acceptable methods (steam under pressure, chemical vapor, dry heat).

(b) All slow speed handpiece motors of one piece design that enter the oral cavity will be sterilized between patients by acceptable methods.

(c) All slow speed motors utilizing removable sleeve / contra-angle design should ideally be sterilized between patients by acceptable methods whenever possible or use the procedure in paragraph (d).

(d) Alternate sterilization procedures for slow speed handpiece motors:

1. At the beginning of the patient treatment day, a sterilized motor will be attached to the dental unit.

2. The motor will be covered with an appropriately designed barrier protection sleeve.

3. Sterilized attachments will be used during patient treatment.

4. Removal of the attachments and barrier protective device after treatment will be accomplished in such a way as to insure no contamination of the slow speed motor will occur.

5. Proper aseptic technique will be followed when placing the new barrier for subsequent patients. If any doubt exists as to possible contamination of the motor, it should be removed and replaced with a sterile motor.

6. The motor will be cleaned and sterilized at the end of the patient treatment day according to the manufacturers' instructions.

7. Chemical disinfection of slow speed motors between patients is NOT ACCEPTABLE! Barrier protection is the only method allowed.

f. Surface disinfection (appendix J):

(1) It is important to disinfect the dental chair, bracket table, cuspidors, counter tops, cart tops, instrument trays, handpieces holders, air drive hoses, three way air / water syringe handles, light handles, etc., between each patient, if they become contaminated, and at the end of the patient treatment day.

(2) Recent developments in disinfection agents indicate that several agents have been accepted by the Environmental Protection Agency as intermediate and high level agents. Each agent has special instructions on mixing, shelf life, surface contact time (3 to 10 minutes), and handling characteristics.

(3) It must be understood that each agent has advantages and disadvantages. Agents must be correctly used. An agent requiring 10 minutes to act cannot be used for only 3 minutes. Agents should also be chosen intelligently. For example, if one material shows a distinct advantage in disinfecting dental impressions, it would be a poor choice to choose another agent which damages the impression just because it "smells nice".

(4) Spraying is the best surface wetting method. In hard to reach areas, spraying on an applicator then wiping may be the only controllable method of application. When using spray bottles a stream should be produced, not an aerosol.

(5) Failure to follow the manufacturers' instructions may affect the efficacy of any agent! All Hazard Communication and chemical safety data must be followed.

(6) Acceptable surface agents are subject to approval by the DENTAC Infection Control Officer.

g. MEDCOM / DENCOM guidelines for the care of Human Immunodeficiency Virus (HIV) infected patients and oral problems related to HIV infection are located in appendix K.

h. Dental laboratory infection control (appendix L):

(1) Prosthodontic procedures - Impressions and prosthetic devices require disinfection before these items are taken to the production area of the laboratory.

(2) Infection control procedures are specific for handling of impressions, prosthetics, casts, etc. Handle equipment and supplies appropriately.

i. Dental radiology. Procedures for infection control must also be followed in dental radiology areas (appendix M).

j. Daily checklists for infection control. These or other local lists should be readily available as applicable in the bay area, lab, or radiology area, preferably where health care workers can readily refer to these basic guidelines:

(1) General checklist for clinical patient care sections (appendix N).

(2) Radiology checklist (appendix O).

(3) Laboratory checklist (appendix P).

k. Dental inprocessing center and all clinic exam areas. These are areas of operational differences where no invasive treatment is provided (appendix Q).

l. Specific information concerning the management of sharps in the dental environment, and Bloodborne Pathogens Exposure Procedure. (appendix R).

m. Medically regulated waste - Amalgam waste handling (appendix S). Also see AR 40-5 and Federal / State Environmental Protection Agency (EPA) regulations.

n. TB Infection Control Plan - Guidelines concerning Tuberculosis in the Dental Health Care Facility (appendix T).

o. The Bloodborne Pathogen Standard (29 CFR 1910.1030) with the 2001 revision (Needlesticks and Other Sharps Injuries) is reproduced and attached to this document for your convenience (appendix U).

p. The Handling of Lab Specimens for Pathology (appendix V).

q. Guidlines for proper Linen Management (appendix W).

r. Specific information concerning Sterilization procedures for the clinic (appendix X).

12. HOUSEKEEPING.

a. A schedule of routine cleaning will be established and maintained for each clinical area. This is based on location, type of surface, type of soil, and tasks or procedures performed in that area. Proper PPE, including utility gloves, will be worn when cleaning and disinfecting contaminated items.

b. All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or OPIM shall be inspected and decontaminated on a regularly scheduled basis. They shall be cleaned and decontaminated immediately or as soon as possible upon visible contamination.

13. HEPATITIS B VIRUS VACCINE AND POST EXPOSURE EVALUATION.

a. The Hepatitis B virus (HBV) vaccine is mandatory for all military personnel and civilians employed after 1 January 1997. It is recommended and will be provided without charge to all civilian employees and volunteers who may have occupational exposure to bloodborne pathogens. Post exposure evaluation and follow-up will be provided to all employees who have an exposure incident (appendix R).

b. Medical evaluations and procedures involving the hepatitis B vaccine and post exposure evaluations and follow-up will be:

(1) Made available at no cost to the employee.

(2) Made available at a reasonable time and place.

(3) Performed under the supervision of an appropriate health care professional.

(4) Provided according to the recommendations of the U.S. Public Health Service.

c. Hepatitis B vaccination shall be made available after the employee has received training in occupational exposure and within ten working days of initial assignment. This applies to all employees who have occupational exposure, unless the employee has previously received the complete Hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons. Participation in a pre-screening program shall not be a prerequisite for receiving the vaccination.

(1) All employees, hired before 1 January 1997, who decline the Hepatitis B vaccination shall sign the OSHA required waiver indicating their informed refusal. If the employee decides at a later date, while still covered by the standard, to accept the vaccination, the vaccination shall be made available. See 29 CFR 1910.1030 for the proper format for the declination form.

(2) All future recommendations concerning the Hepatitis B vaccination made by the U. S. Public Health Service shall be followed.

d. All exposure incidents shall be reported, investigated, and documented. The Exposure / Infection Control Committee (or Officer) must report the results of the

investigation to the Quality Assurance Committee. Following the report of an exposure incident, the exposed employee shall immediately receive a confidential medical evaluation and follow-up with Occupational Health, including at least:

(1) Documentation of the route of exposure and the circumstances of the incident.

(2) Identification and documentation of the source individual, unless that identification is infeasible or prohibited by state or local laws.

(3) The source individual's blood shall be tested as soon as possible. Consent may be required from the source individual. If consent is not obtained, it must be documented in the evaluation report. When the source individual's consent is not required by law, the source individual's blood shall be tested as soon as possible.

(4) When the source individual is already known to be positive for a bloodborne pathogen, testing for that source individual need not be repeated.

(5) Results of the source individual's testing shall be made available to the exposed employee. The employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

(6) The exposed employee's blood shall be collected as soon as possible and tested after consent is obtained (where consent is required by law).

(7) The employee will be offered the option of having their blood collected for testing of the HBV and HIV serological status. If the employee does not desire testing, the blood will be preserved for up to 90 days in case the employee changes their mind.

(8) The following information must be provided to the health care provider who is responsible for the Hepatitis B Vaccination and Post Exposure Follow-up program:

(a) A copy of 29 CFR 1910.1030.

(b) A written description of the exposed employee's duties as they relate to the exposure incident.

(c) Written documentation of the route of exposure and the circumstances under which the exposure occurred.

(d) Results of the source individual's blood testing (if available).

(e) All medical records relevant to the appropriate treatment of the employee including vaccination status.

(9) The written opinion of the health care provider shall be obtained within fifteen days. A copy of this report must be given to the employee. The report will consist of:

(a) The health care provider's written opinion for HBV vaccination shall be limited to whether HBV vaccination is indicated, and if that employee has received such vaccination.

(b) The health care provider's written opinion for post exposure follow-up shall be limited to:

1. A statement that the employee has been informed of the results of the evaluation.

2. A statement that the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

3. ALL OTHER FINDINGS OR DIAGNOSIS SHALL REMAIN CONFIDENTIAL AND SHALL NOT BE INCLUDED IN THE WRITTEN REPORT.

e. Standard safety and accident reporting documents and other OSHA accident information shall also be completed as applicable on all exposure incidents.

f. The occupational health or preventive medicine section of local medical facilities is a point of contact on the health care and reporting requirements of exposure incidents.

14. LABELS AND SIGNS.

a. The universal biohazard labels, signs, or colors must be used on all containers of regulated medical waste, contaminated laundry bags, refrigerators and freezers or other cabinets where blood or other potentially infectious material is stored, and other containers used to store, transport, or ship blood or other potentially infectious materials.

b. Blood products released for transfusion or other clinical use are exempted from these labeling requirements.

c. Equipment that cannot be decontaminated needs to be properly labeled before turn-in or maintenance procedures.

15. INFORMATION AND TRAINING. The Dental Activity Infection Control Officer shall coordinate all training. It will cover the required subjects listed in 29 CFR 1910.1030. A question / answer or interactive training period must be included and documented on training in exposure control / OSHA standards. Other training in infection control will be conducted as needed. The level of infection control training and content will be determined by evaluations of clinical operations based on DENCOM policy, Command Inspection Programs, and professional organizations' current guidance (American Dental Association, Centers for Disease Control and Prevention, etc.). New employees must receive proper training and HBV vaccination information within ten days of employment. Training in infection control and OHSA compliance for new employees is mandatory. Separate records of the new employee training should be kept for three years.

16. RECORDKEEPING.

a. Medical records will be established for each employee with occupational exposure potential. They may be kept and maintained by the clinic, DENTAC, Occupational Health, or the health care facility providing the medical care for the dental facility. They must be available for the employee and kept in accordance with OSHA Standard 29 CFR 1910.20. These records shall be kept confidential and maintained for the duration of employment plus 30 years. The records will include:

(1) Name and social security number of employee.

(2) Copy of the employee's HBV vaccination status, including any vaccination dates.

(3) A copy of all results of examinations, medical testing, and follow-up procedures.

(4) A copy of the information provided to the health care provider, including a description of the employee's duties as they relate to any exposure incident, documentation of routes of exposure and circumstances of any exposure incident.

b. Training records will be maintained for three years from the date of training and shall include:

(1) Date of training session.

(2) Outline of material presented.

(3) Name and qualification of trainer.

(4) Name and job title of persons attending the training.

c. Sharps Injury Log. The DENTAC shall establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such manner as to protect the confidentiality of the injured employee. The sharps injury log will include:

(1) The type and brand of device involved in the incident.

(2) The department or work area where the exposure occurred.

(3) An explanation of how the incident occurred.

The sharps injury log shall be maintained for the period of 5 years following the end of the calendar year to which they relate. (appendix Y)

17. EVALUATION AND REVIEW. The DENTAC Infection Control Officer shall conduct a review on an annual basis of the Infection Control / Exposure Control Program. Review of the effectiveness of the program and updating the program as needed is mandatory.
According to the 2001 revision of the OSHA REG 29 CFR 1910.1030, the Exposure Control Plan shall be reviewed and updated at least annually, as well as, whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure. It will also reflect new or revised employee positions with occupational exposure. The review and update of such plans shall also reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens. It will also document consideration and implementation of appropriate commercially available effective, safer medical devices designed to eliminate or minimize occupational exposure.
The DENTAC will solicit input from non-managerial employees responsible for direct patient care and who are potentially exposed to injuries from contaminated sharps. They will assist in providing input in the identification, evaluation, and selection of effective engineering and work practice controls. The DENTAC will document the solicitation in the Exposure Control Plan.

18. DATES OF IMPLEMENTATION. All provisions required by the OSHA Standard 29 CFR 1910.1030 will be implemented by the effective date of that document. The Schedule and Method of Implementation for the Fort Carson DENTAC is located in appendix Z.

19. PROPONENT. The proponent for this regulation is the DENTAC Infection Control Officer. Comments, suggestions and any clarification regarding this regulation should be brought to the DENTAC Infection Control Officer’s attention.

20. APPENDIX:

A. References
B. Glossary
C. Risks and Susceptibility
D. Classification of Personnel and Tasks According to Levels of Risk of Exposure as Defined in OSHA Guidelines
E. Personal Hygiene
F. Hand Washing
G. Personal Protective Equipment - Latex Allergy Policy
H. Control of Dental Treatment Room Aerosols

I. Infection Control for Patient Treatment
J. Surface Disinfection
K. HSC Guidelines for the care of HIV Infected Patients and Oral Problems Related to HIV Infection
L. Dental Laboratory Infection Control
M. Dental Radiology
N. Clinic Checklist Guidelines for Infection Control
O. Dental Radiology Checklist Guidelines for Infection Control
P. Laboratory Infection Control Daily Checklist
Q. Dental Inprocessing Centers and All Clinic Exam Areas Where No Invasive Treatment is Provided
R. Sharps Management - Bloodborne Pathogen Exposure Procedure
S. Infectious Waste - Amalgam Waste Handling
T. TB Infection Control Plan - Tuberculosis in Health Care Settings
U. OSHA Regulation 29 CFR 1910.1030 revision 2001
V. Handling of Lab Specimens for Pathology
W. Linen Management
X. Sterilization
Y. Sterilization/Infection Control (Monthly Report) - Sharps Injury Log
Z. Schedule and Method of Implementation

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Commanding

DISTRIBUTION:
DENTAC Infection Control Officer
5 each Dental Clinic Infection Control Officer
Commander's Office File
HQ's File

Appendix A

REFERENCES

a. AR 40-5, 15 October 1990, Preventive Medicine.

b. AR 600-110, 22 April 1994, Identification, Surveillance, and Administration of Personnel Infected with Human Immunodeficiency Virus (HIV).

c. TB Med 6, 30 September 1976, Occupational Health and Safety in Dental Clinics.

d. TB Med 266, 31 May 1995, Disinfection & Sterilization of Dental Instruments and Materials.

e. FM 8-38, 28 February 1979, Centralized Material Service/Section.

f. FM 8-225, 3 December 1984, Dental Specialist.

g. (Revision Of) Section 1030, part 1910, title 29, Code of Federal Regulations (29 CFR 1910.1030), Occupational Safety and Health Administration (OSHA), Occupational Exposure to Bloodborne Pathogens; Needlesticks and Other Sharps Injuries; Final Rule, Federal Register, 18 January 2001, VOL 66, No. 12.

h. OSHA Instruction CPL 2-2.44-C, 1991, Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens Standard, (29 CFR 1910.1030).

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j. US Department of Labor, Occupational Safety and Health Administration. Memorandum from Roger A. Clark, SUBJECT: Enforcement policy and procedures for occupational exposure to tuberculosis, Federal Register, October 8, 1993.

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o. Centers for Disease Control. Update: Universal Precautions for Prevention of Transmission of Human Immunodeficiency virus, Hepatitis B Virus, and other bloodborne pathogens in Health Care Settings. Morbidity and Mortality Weekly Report (MMWR), 37 (no. 24) 1988.

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q. Centers for Disease Control. Recommended Infection-Control Practices for Dentistry, 1993. Morbidity and Mortality Weekly Report (MMWR), 42:RR-8, 1993.

r. Centers for Disease Control. Guidelines for preventing the transmission of Tuberculosis in Health-care settings, with special focus on HIV-related issues. Morbidity and Mortality Weekly Report (MMWR), 39:RR-17, 1990.

s. Centers for Disease Control and Prevention. Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Facilities, 1994. Morbidity and Mortality Weekly Report (MMWR), 43: RR-13, 1994.

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Appendix B

GLOSSARY

Section I
Abbreviations

ADA.....American Dental Association
DENCOM.....U. S. Army Dental Command
DIPC.....Dental Inprocessing Center
DTR.....Dental Treatment Room
EPA.....Environmental Protection Agency
IAW.....In Accordance With
NCOIC.....Noncommissioned Officer in Charge
OIC.....Officer in Charge
OPIM.....Other Potentially Infectious Materials
OSHA.....Occupational Safety and Health Administration
OTSH.....Office of the Surgeon General
QA.....Quality Assurance
SOP.....Standing Operating Procedure

Section II
Terms

1. Antiseptic: Chemical agent applied to tissue to inhibit growth of microorganisms.

2. Asepsis: A pathogen free condition.

3. Aseptic technique: Central to any program of Infection Control is the concept of Aseptic Technique. Essentially, before, during and after patient treatment - clean, sterile, disinfected and aseptic materials should not contact contaminated materials. When this occurs, the barrier of infection control is broken and the possibility for a condition of cross contamination is more likely, if not actual. Examples of breaks in aseptic technique are:

a. Contaminated hands or gloves touching clean, sterile or disinfected materials: Always use clean / sterile gloves to touch clean materials especially when setting up for patient care. If gloves become contaminated, change them before handling clean / sterile materials or use clean sterile pick-up instruments. It is obvious during patient treatment that gloves and instruments will be contaminated by the patient's oral cavity, but such contaminates should not be allowed to contact materials used on other patients or break standard-universal precaution barriers. Don't put a gloved hand in your mouth, for example. Don't use soiled gloved hands to write up dental records or answer the telephone.

b. "Clean" materials touching unclean surfaces:

(1) Instruments must be placed on clean disinfected surfaces, sterile towels or paper barriers.

(2) Sterilized handpieces must not be attached to non-disinfected hoses or unit handpiece holders.

(3) Cover or disinfect light handles or operatory lights.

(4) Adjust chair controls with glove wrapper paper (sterile side) or cover chair controls with plastic materials or surface disinfect between patients.

Aseptic technique is the conscious performance of multiple tasks that maintain the "aseptic to aseptic" relationship of contact and protects both patients and health care workers. DON'T BREAK THE BARRIER.

4. Barriers: Items of equipment and infection control techniques designed to interrupt potential infection and protect patients and health care workers. Masks, glasses / face shields, gowns, drapes, covers, disinfecting processes and sterilization are examples of barriers. Autoclave bags, not touching records or pens and pencils while gloved are also barriers, etc.

5. Blood: Human blood, human blood components, and products made from human blood.

6. Bloodborne Pathogens: Pathogenic microorganisms that are present in human blood or certain body fluids that can cause disease in humans. These include, but are not limited to, Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV).

7. Body Substance Isolation (BSI): A consistent approach to infection control that can prevent the transmission of potentially infectious agents from body substances. All human blood and body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens. Personal protective equipment is worn as appropriate for any actual or reasonably anticipated contact with blood and other potentially infectious materials (OPIM).

8. Contaminated: The presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

9. Contaminated Laundry: Laundry which has been soiled with blood or other potentially infectious materials, or may contain sharps.

10. Contaminated Sharps: Any contaminated object that can penetrate the skin including, but not limited to needles, burs, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

11. Decontamination: The use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item. They are then no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

12. Dental Assistant (DA): An individual who assists the primary dental care provider in the treatment of patients.

13. Dental Hygienist (DH): An individual specially trained to perform dental hygiene procedures for the dental patient under the supervision of a dental officer. This may include taking impressions and exposing dental intraoral radiographs.

14. Dental Therapy Assistant (DTA): An individual specially trained to perform certain reversible dental procedures directly for the dental patient while under the supervision of a licensed dental officer or dentist. This may involve dental hygiene procedures as well as the placement of dental restorations.

15. Disinfection: The destruction or inhibition of most pathogenic bacteria while they are in their active growth phase, and the inactivation of most viruses. In most cases the disinfecting process does not kill spores and cannot be easily verified.

16. Disinfectant: Chemical agent applied to surfaces to inhibit the growth of organisms. In the case of EPA category I agents, they will kill HIV, HBV, and TB viruses. The term disinfectant in this document will refer to a EPA registered hospital level chemicals (kills Mycobacterium tuberculosis, lipophilic viruses, and hydrophilic viruses).

17. Debridement: A process which removes gross debris or residues and reduces the number of microorganisms on nonliving material.

18. Engineering Controls: Include all control measures that isolate or remove the bloodborne pathogens hazard from the workplace. (sharps disposal containers, removal of contaminant at the point of generation, self-sheathing needles, sharps with engineered sharps injury protections and needless systems, splashguards, etc.)

19. Enzyme Linked Immunosorbent Assay (ELISA): A screening test designed to identify the antibody produced against HIV.

20. EPA: Environmental Protection Agency.

21. Exposure Incident: A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from and / or during the performance of an employee's duties.

22. Health Care Workers (HCW): All MEDDAC / DENTAC employees, students, contract employees and volunteers whose work may involve direct contact with human blood, body fluids, and tissues.

23. Hepatitis B Virus (HBV): The virus implicated in the transmission of Hepatitis B.

24. Human Immunodeficiency Virus (HIV): A human retrovirus specifically implicated in the etiology of Acquired Immune Deficiency Syndrome and AIDS Related Complex. Formerly known as Human T-Lymphotropic Virus Type III (HTLV-III) or AIDS-Associated Retrovirus (ARV).

25. Needleless Systems are devices that do not use needles for the collection or withdrawal of body fluids, or for the administration of medication or fluids.

26. Nosocomial Transmission: Pertains to transmission of a disease that originated in the health care setting.

27. Occupational Exposure: Reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from and / or during the performance of an employee's duties.

28. Other Potentially Infectious Materials (OPIM):

a. The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.

b. Any unfixed tissue or organ (other than intact skin) from a human (living or dead).

c. HIV-containing cell or tissue cultures, organ cultures, and HIV or HBV containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

29. Personal Protective Equipment (PPE): Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

30. Regulated Medical Waste (RMW):

a. Liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials.

b. Waste that is potentially capable of causing disease in man and may pose a risk to both individuals or community health if not handled or treated properly. Consists of the following classes:

Class I---------- Culture Stock and Vaccine.
Class II---------- Pathological Waste.

Class III---------- Blood and Blood Products.
Class IV & VII---------- All used and unused Sharps.
Class V---------- Animal Waste.
Class VI---------- Isolation CDC Risk Group IV Group.

31. Sharps: Any object that can penetrate the skin including but not limited to needles, scalpels, broken capillary tubes, and dental wires.

32. Sharps with Engineered Sharps Injury Protections: Include non-needle sharps or needle devises used for withdrawing fluids or administering medications or other fluids that contain built-in safety features or mechanisms that effectively reduce the risk of an exposure incident.

33. Source Individual: Any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; human remains; and individuals who donate or sell blood or blood components.

34. Standard - Universal Precautions: Because the health status of all patients can not always be completely ensured, basic infection control means that all patients must be treated as if their blood and certain body fluids are potentially infectious for HIV, HBV, and other bloodborne pathogens. Standard - Universal precautions refers to systems designed to protect workers and patients. These are most obviously masks, gloves, glasses / face shields, gowns and smocks. They also include the use of autoclaves and surface disinfecting techniques, etc., as well as sharps safety and barrier techniques.

35. Sterilization: The process by which all forms of life within an environment are totally destroyed, including viruses and spores. Heat sterilization can be monitored and verified. The sterilization by high level disinfectant solutions cannot be easily monitored or verified.

36. Work Practice Controls: Controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

Appendix C

RISK AND SUSCEPTIBILITY

1. Risk and Susceptibility: There are many serious diseases that are transmitted by saliva and blood. The susceptibility to infections depends upon their concentration and virulence. Some of the high risk groups include: hepatitis B, tuberculosis, herpes and many other virulent, viral or spore-forming bacterial infections. Some of the diseases that are less susceptible to transmission but which are no less dangerous, include: HIV, syphilis, measles, mumps and other fairly fragile organisms. Spore-forming bacteria and some viruses remain inert on surfaces for long periods of time and become active when the appropriate hosts or host conditions are present.

2. Modes of Transmission: The various modes of transmission of infectious diseases are listed below.

a. Direct percutaneous inoculation by needle or sharp object. This is the most common mode of actual transmission.

b. Non-needle percutaneous inoculation resulting from scratches, scrapes, burns or dermatitis on the skin. Even indiscernible nicks or cuts have been incriminated in disease transmissions thus providing ample justification for consistently wearing gloves during patient treatment.

c. Introduction of blood, serum or infective secretions onto mucosal surfaces. The risk of this type of exposure may be lessened most efficiently by wearing face protection (glasses with side shields or face shields and surgical masks) to stop splatter contamination of the eyes, mouth and nose.

d. Indirect transfer of infective serum via environmental surfaces. This mode is one of the least efficient of all, but hepatitis B virus does survive for considerable periods of time after drying on inanimate surfaces. Thorough disinfecting of work surfaces and using disposable barrier techniques, such as aluminum foil or plastic wrap on hard to clean surfaces, will keep this risk to a minimum.

e. The last method of transmission is aerosol transmission and splatter. This is the least implicated mode of transmission. It can be controlled by having the patient rinse with an anti-microbial solution, using high speed evacuation, using a rubber dam, using mask and glove barriers, and avoiding the use of brushes in polishing.

Appendix D

CLASSIFICATION OF PERSONNEL AND TASKS ACCORDING TO LEVELS OF RISK OF EXPOSURE AS DEFINED IN OSHA GUIDELINES

OTSG policy requires that all personnel working within the Dental Unit be classified according to the level of risk of exposure which they are subject to in the work environment. This requirement is in keeping with OSHA guidelines requiring that tasks performed in dental clinics be evaluated and classified into one of the categories listed below.

Category 1: Tasks that involve exposure to blood, body fluids or tissues. All procedures, or other job related tasks, that involve an inherent potential for mucous membrane or skin contact with blood, body tissues or fluids, or a potential for spills or splashes, are category 1 tasks. Use of appropriate protective measures are required for every employee engaged in Category 1 tasks. Most, although not necessarily all, tasks performed by the dentist, hygienist, dental assistant, radiology technician, and some laboratory technicians, would fall into this category.

Category 2: Tasks that involve no exposure to blood, body fluids or tissues, but exposure or potential exposure may be required as a condition of employment. Appropriate protective measures are readily available to every employee engaged in category 2 tasks. Clerical or nonprofessional workers who may as a part of their duties, help clean up the dental operatory, handle instruments, or patient materials to be sent to dental laboratories would be classified as category 2. TASKS THAT PLACE A CATEGORY 2 EMPLOYEE AT RISK MUST BE IDENTIFIED.

Category 3: Tasks that involve no exposure to blood, body fluids or tissues. The normal work routine involves no exposure to blood, body tissues or fluids. Personnel who perform these duties are not called upon as a part of their employment to perform or assist in emergency medical care or first aid or to be potentially exposed in some other way. A receptionist, or clerk who does not handle dental instruments or materials would be a category 3 worker.

NOTE: These classifications are not rigid and there may be crossover, depending on the job performed.

EXAMPLES OF CLASSIFICATIONS

CATEGORY 1	CATEGORY 2	CATEGORY 3
Dentist	NCOIC	Receptionist
Hygienist	Supply Technician	
Dental Assistant	Red Cross Volunteer	
Laboratory Technician		
Radiology Technician		

NCOIC & RED CROSS VOLUNTEER

Any task related to dental assisting or operatory clean-up will require adherence to all requirements placed on Category I personnel.

SUPPLY TECHNICIAN:

Any task related to handling laundry or potentially contaminated equipment will require adherence to all requirements placed on Category I personnel.

Figure 1. Classification Examples

Tasks and procedures performed by Category 1 or Category 2 employees that could result in occupational exposure may include:

- Oral surgery procedures
- Periodontal evaluations and surgical procedures
- Operative dentistry procedures
- Endodontic procedures (surgical and non-surgical)
- Prosthodontic procedures
- Orthodontic procedures
- Oral prophylactic procedures to include deep scaling and root planing
- All clean up procedures where contaminated sharps are handled
- Providing CPR to a patient
- Laboratory procedures
- Radiological procedures
- Handling laundry or contaminated equipment

Appendix E

PERSONAL HYGIENE

1. Clothing: Scrubs, which are clinic attire for Cat. 1 and Cat. 2 employees, should be changed daily. They should be capable of withstanding frequent and multiple washing. They should be made from cotton / synthetic blends or synthetic materials which retain fewer microbes and lasts longer than 100 percent cotton fabrics. Lab coats and smocks designated as PROTECTIVE OVER GARMENTS must be kept at the place of duty. Wearing a protective over garment at home at the end of the day may bring unwanted microorganisms into a household, especially to susceptible children. The choice of sleeve length and other body coverage is defined by the procedure being performed. No one garment or policy can cover all clinical areas or procedures. OSHA regulations are very specific and should be consulted to help make the final decision on the types of personal protective garments to be worn. OSHA regulations require employees to remove or cover protective garments before leaving the work area. Saliva, water aerosols, and blood easily soil garments after limited use and make the protective garment highly contaminated. It makes little sense to sterilize, disinfect, and treat instruments and work surfaces and yet wear grossly contaminated clothing. Additional personal clothing must NOT be placed over protective garments, e.g. sweaters. Scrubs can be worn over uniforms if duty requirements necessitate a rapid departure from the clinic.

2. Hair Style: All personnel should have well managed hair, preferably short. Long hair should be kept in a bun or otherwise restrained or covered. Hair is a body surface area potentially exposed to aerosols or splatter.

3. Jewelry: Jewelry on the hands and wrists will not be worn during patient treatment or clean up procedures. They offer protection to microbes and interfere with hand and arm washing. Jewelry can also compromise glove integrity. Jewelry and watches are easily contaminated during splatter prone procedures.

Appendix F

HAND WASHING

1. The skin harbors two types of flora, resident and transient. Resident organisms can survive and multiply on the skin, can be cultured repeatedly, are usually of low virulence, and are not easily removed. Conversely, transient bacteria do not readily survive and multiply on the skin, and are not firmly attached. It has been shown that the mere mechanical action of rubbing the hands together and rinsing them under running water is an important aspect in the removal of transient organisms.

2. Hand washing is considered to be one of the most important procedures in preventing infections. The purpose of hand washing is to remove resident bacteria and transient organisms acquired from contact with patients or contaminated surfaces.

3. Any approved antimicrobial liquid soap (chlorhexidene gluconate, for example) can achieve satisfactory results. Bar soap should be avoided as it has been shown to harbor and even allow micro-organisms to grow and multiply. Clinic latrines should also be provided with liquid soap, not bar soap.

4. A rigid hand washing policy must be followed by all personnel involved with patient care.

a. Beginning of the work day:

(1) Remove all jewelry, check hands for cuts and abrasions.

(2) Fingernails must be trimmed and cleaned, utilizing a nail cleaner. False fingernails or nail polish should not be worn. Contamination may occur from fungal growth occurring between false and natural nails.

(3) Scrub hands and forearms with an approved liquid soap for 2 minutes, rinse well under cool / warm water.

(4) Repeat the cleaning process twice, lathering for 10 seconds, and rinse thoroughly. Some hand cleansing agents will irritate the skin if not thoroughly removed.

(5) Dry hands first, then forearms, with a disposable paper towel and then use that towel to turn off faucets if they are hand controlled.

b. Between patients:

(1) Lather hands and forearms for 10 seconds, rinse, and repeat lather step. Rinse thoroughly with cool / warm water.

(2) Dry hands first, then forearms, with a disposable paper towel and then use that towel to turn off faucets if they are hand controlled.

c. Surgical scrub:

(1) Remove all jewelry and clean fingernails with a clean plastic or wood stick. Examine hands for cuts and abrasions.

(2) Scrub nails, hands and forearms with an antimicrobial soap and a sterile brush or sponge for 7 minutes, using multiple scrub and rinse cycles.

(3) Rinse hands and forearms with cool water, starting at the fingertips and keeping your hands above the elbows. Let the water drip from your elbows, not your hands.

(4) Dry with a sterile towel beginning with your hands working toward your elbows.

(5) Apply gloves in an aseptic manner.

d. Repeat Hand Cleansing:

(1) Always wash hands after removing gloves between patient appointments, before handling records, before lunch, after a break in routine, and before leaving the clinic.

(2) Possible contamination through the gloves and rapid multiplication of bacteria under gloves makes this step in hand care the most important step.

(3) Antimicrobial soaps help keep the multiplication of bacteria under gloves to a minimum.

Appendix G

PERSONAL PROTECTIVE EQUIPMENT - LATEX ALLERGY POLICY

1. The Basis for Selection of Personal Protective Equipment (PPE): The selection of PPE will depend on the degree of anticipated exposure to BBPs and the procedure being performed. An oral examination will require a different level of PPE than using an ultra-sonic scaler or removing a tooth.

2. Face masks should be worn by all personnel at all times when treating patients and during operatory and instrument clean up, when spatter from contaminated materials is anticipated. Masks should provide a 95 percent filtration rate of particles 3-5 microns in diameter. It is desirable to change to a fresh mask for each patient. Masks may not be worn out of the work area. Masks may be worn on successive patients as long as:

a. Masks are not touched after the hands have been prepared for treatment.

b. Masks are changed reasonably often or when compromised.

c. Masks should always be changed between patients after splash procedures, such as high speed drilling or low speed prophy polishing. These procedures spray moist debris, thereby providing a mode of transmission through the masks.

d. Face shields are not substitutes for masks, but are acceptable substitutes for glasses.

3. Eyeglasses with solid side shields must be worn by all personnel when splatter is anticipated when treating patients, cleaning instruments, or during routine cleaning, to protect the eyes from aerosol droplets, splatter, and flying debris. Traditional eyeglasses offer reasonable protection, larger diameter lenses offer better protection. Face shields offer maximum eye protection. In addition, eyeglasses with solid side shields will be worn when handling chemicals such as developing fluids, surface disinfection fluids, etc., if the manufacturer recommends such protection. The eye can be a source of local or systemic infections. Infectious diseases may be transmitted through the eyes. Additionally, debris can mechanically injure the eye. Consideration should be given to covering the patient's eyes during treatment, particularly when using the high speed handpiece. The larger the area protected, the less risk of infection through the eyes. Eyeglasses should be washed thoroughly with soap under flowing water following each patient treatment. The mechanics of washing glasses with soap and copious amounts of water removes large numbers of microorganisms. Eye protection may be worn on successive patients as long as:

a. The eye protection is not touched after the hands have been prepared for treatment.

b. The eye protection is washed reasonably often, particularly following "splash procedures." Use an antimicrobial soap to wash eyewear. Disinfection of eyewear should be done carefully and proper selection of the disinfection agent is essential to prevent damage to the frames and lenses.

4. Gloves can play a significant role in the prevention of cross-contamination during all dental procedures. They protect the wearer by keeping microorganisms out of cuts, abrasions and breaks in the skin. Hand cleanliness is extremely important when gloves are worn because bacteria can multiply rapidly in the warm, moist environment inside gloves. Gloves must be changed between patients. Hand washing should be repeated before applying new gloves and after removing gloves. Clean exam gloves should be used for all procedures where sterile surgeon's gloves are not required for sterile fields. Under no circumstances are exam or surgical gloves to be washed and reused. Nitrile latex utility gloves should be used for instrument contact clean-up procedures (e.g., scrubbing and autoclave bagging instruments).

a. Personnel wearing gloves must keep fingernails trimmed short. Longer fingernails may cut or puncture gloves.

b. Gloves should be changed often. About once every hour when worn with the same patient, or more often if the hands perspire profusely. Perspiration may encourage growth of microbes on the skin, which may cause irritation. Washing with antimicrobial soap will discourage microbial growth.

c. Heavy duty utility gloves should be worn when handling contaminated instruments after the patients are dismissed. These gloves should be washed with soap and water before being removed from the hands. Rinse and dry the gloves. The washed and dried gloves should then be sprayed with an intermediate level disinfectant or sterilized in the autoclave.

5. All personnel must wear the proper smock, gown, or lab coat as personal protective equipment(PPE) when involved in patient care, clean-up procedures, and some laboratory procedures. Arm and lap coverage must be considered for procedures involving splash, spatter, or aerosols. PPE must be changed daily or when visibly soiled. All smocks, gowns or lab coats that are contaminated will be turned in for laundering in the employee's clinic or sent out to be laundered. Smocks, gowns, lab coats or other personal protective clothing or equipment may not be worn outside the clinic, in areas designated as food consumption, break areas, classrooms, meeting rooms, offices, or any other "biologically clean" area. Protective garments can be covered with clean overgarments to protect these areas. Ideally personal protective equipment should remain in the operatory, and not worn in the front desk area or patient waiting area.

6. Lids should be placed on ultrasonic cleaners to reduce the spread of aerosols into the dental treatment room.

7. Food and drink will not be consumed in the dental treatment room because bacterial aerosol particles can remain airborne long after a procedure is complete. Personal items should not be left out in patient treatment areas, clean-up / sterilization areas or operatories.

LATEX ALLERGY POLICY

1. Latex is a milky white fluid that is produced by cells of various seed plants and may take the form of synthetic rubber or plastic obtained by polymerization.

2. Adverse reactions to latex products include an irritant dermatitis, immediate or type I allergic reaction. Symptoms may include the following:

Puritis (itching), erthema, edema
Conjunctivitis
Rhinitis
Asthma
Uticaria (hives)
Abdominal cramping or diarrhea
Hypotension
Anaphylaxis

3. The usual criteria for a diagnosis of latex allergy is a history of typical signs and symptoms following latex exposure on multiple occasions, a positive test (alastat, CAP) for latex specific IGE, or the absence of significant improvement with avoidance of latex products.

4. The typical person(s) who might exhibit latex allergy are likely to be older, have history of other allergies, have had positive skin tests to other allergens, or have a family history of latex allergy.

5. The following procedures should be implemented for the protection of all patients:

a. Inquire about allergy history when reviewing the medical history.

b. Have non-latex products available in case of suspected allergy problems

c. Refer for medical evaluation if needed.

6. For documented latex allergy patients the following recommendations should be followed:

a. Treat patient at the start of the workday to minimize airborne contamination of latex components in the clinic.

b. Clean and prepare the operatory the night before using no latex containing products (gloves, etc.). Remove all latex products from the operatory.

c. Use an instrument pack that was prepared without contact with latex products. Clean and pack for sterilization using non-latex gloves.

d. Set up the operatory with non-latex products.

e. Allow no latex into the operatory while the patients is present.

f. Use non-latex gloves such as vinyl or nitrile rubber for treatment.

g. Carefully evaluate exposure potential if patient must be seen in other clinical areas such as radiology.

7. The dental health care worker who suspects they might have a latex allergy should be evaluated by an occupational health counselor and have medical testing to determine if latex is the allergen causing problems. In the interim they should avoid latex products and use alternative materials.

8. Potential employees in clinical dentistry should be evaluated before employment for potential problems concerning a latex allergy.

Appendix H

CONTROL OF DENTAL TREATMENT ROOM AEROSOLS

1. Introduction: Even though much effort and time is devoted to the sterilization and disinfection of instruments and surfaces to prevent cross-contamination, it is also important to prevent disease transmission by dental aerosols. Aerosols in the work environment present a significant health hazard for both the DENTAC staff and patient.

2. Aerosol Management: Dental procedures usually generate aerosol particles that are 1.3 microns and larger in diameter. These particles can remain airborne for many hours after a dental procedure has been completed. When inhaled, particles less than five microns in diameter can bypass the body's protective filtering system and penetrate directly to the terminal bronchioles and alveoli of the lungs. Their effects can be harmful and cumulative. To reduce the potential risk to the dental staff and to patients, steps should be taken to reduce the levels of microorganisms in dental aerosol, minimize the total amount of aerosols produced, and protect those persons exposed to dental aerosols.

a. Reducing microbial levels in dental aerosols. The daily flushing of water lines for 3 to 5 minutes at the beginning of the day, and 20-30 seconds between patients, as well as the installation of anti-retraction valves, will reduce microbial levels in the dental unit water supply. Using units with a self-contained water system that is routinely disinfected will also reduce microbial levels. In addition, it has been shown that patients who brush their teeth or rinse with a mouthwash before treatment will significantly reduce the microbial concentration of their oral flora. Three 10-second rinses can temporarily reduce a patient's oral microbial count by as much as 97%. A rubber dam should also be used whenever possible to reduce the microbial level of dental aerosols.

b. Reducing aerosol production. The following techniques will aid in the reduction of aerosol production:

(1) High volume evacuation captures aerosols.

(2) Cleaning cavity preparations with water alone, rather than a combination of air and water spray, will reduce aerosol formation.

(3) Polishing restorations with rubber points and finishing burs produces less aerosolization than polishing with bristle brushes.

3. Hand scaling produces less aerosols than a sonic or ultra-sonic scaler.

Appendix I

INFECTION CONTROL FOR PATIENT TREATMENT

The fact that the patients we are treating on a day-to-day basis may be infected, either knowingly or unknowingly, poses one of the greatest challenges to modern dental practice. It is the responsibility of each health care provider to take adequate precautions to protect themselves and to prevent cross contamination between patients. The following procedures should be rigidly adhered to:

a. All infection control programs begin with screening and evaluating patients. Patients will be screened at the dental chair by the health care provider (dentist, hygienist, DTA, etc.) prior to receiving any dental care. Any patient with a known active contagious disease, in an acute phase, with obvious clinical signs of illness, fever, malaise, etc., will not be provided routine dental treatment. They will be referred to a health care provider or their physician for disposition. Annotations to the medical history will be made as medical complications are discovered. Be wary of patients not feeling well. Question them thoroughly. If there is any doubt, treatment should be postponed until further information is secured.

b. The medical history of all patients should be updated with each new periodic examination or prolonged time interval between treatments. Any seriously questionable response should be dealt with by postponing treatment until medical laboratory tests can be obtained and a treatment program planned. If a patient is identified as requiring SBE, or other antibiotic prophylaxis, the current recommendation and protocol must be followed.

c. Always treat every patient (at every visit) as if they are infectious. Use Standard-Universal Precautions at all times.

d. Get immunized for all possible diseases, especially Hepatitis B.

e. It is recommended that self-sheathing needle be used. If they are not available do not recap needles by hand. Use cotton pliers or other methods to hold the needle sheath for recapping, or use the one-handed scoop method.

f. Wash hands thoroughly in the approved manner.

g. Always wear mask and gloves. Wear sterile gloves for sterile field procedures. Wear two pair if extended exposure to body fluids is anticipated.

h. Wear appropriate clinical attire (scrubs) and proper personal protective equipment and change daily or as soon as possible if it becomes soiled.

i. Do not eat or drink in the operatories, or in the dental lab.

j. Use rubber dams whenever possible to control aerosols.

k. Use high-speed evacuation to control aerosols.

l. During clean up, handle sharp instruments with care using heavy-duty gloves. Dispose of all sharps (needles, blades, broken instruments, endodontic files, wires, arch bars, burs, etc.) in approved puncture-proof containers.

m. Have patients rinse with an antiseptic mouth wash prior to any operative or surgical treatment.

n. Sterilize all instruments.

o. Ideally all dental units should have their own self contained water system that can be disinfected weekly with an appropriate disinfectant solution. Dental units that are connected to the municipal water system should have the handpiece, air-water syringe and scaler lines flushed for 3 -5 minutes before the first patient. Flush the same lines for 20 - 30 seconds before and after each patient.

p. If a medical emergency occurs requiring cardiopulmonary resuscitation (CPR), PPE (gloves, glasses, a pocket mask, etc.) are required by the employee performing CPR.

q. Engineering controls are physical things that remove or isolate a hazard from the work place. Examples include sharps container, high volume evacuators, splash guards and self sheathing needles. Engineering controls will be examined at least every 6 months to ensure they are in good condition, working properly and being maintained as designed.

r. Work practice controls are task oriented. They are changing or altering a task or procedure to reduce the likelihood of exposure to bloodborne pathogens. Examples include prohibiting recapping of needles by a two handed technique, prohibiting eating and drinking in the work areas, hand washing, and wearing heavy duty gloves when handling sharps.

Appendix J

SURFACE DISINFECTION

1. Chairs, bracket tables, cuspidors, counter tops, etc. should be scrubbed daily with disinfectant soap as needed to maintain cleanliness. See TB MED 266 (31 May 1995) for further information.

2. In between each patient (if contamination has occurred):

a. Scrub surface with soap and water to remove gross debris.

b. Spray or wipe thoroughly with an approved disinfectant if the surface or object requires disinfection..

c. Allow the disinfectant to stand for the proper contact time depending on the product instructions. Use plastic spray bottles properly labeled as to content, HAZCOM information, and the date the agent expires, according to the product instructions. Either spray surfaces or use a wipe on method to apply the disinfectant. When spraying, avoid creating aerosols.

3. Hard to clean areas such as light handles, x-ray heads, cones, arms and control panels should be covered with plastic wrap, aluminum foil or impervious paper backing that must be removed between patients and prior to removing gloves. Barrier protection methods are generally more effective than disinfecting.

4. All instruments will be thoroughly cleaned to remove debris prior to high-level disinfection or sterilization.

a. Cleaning will be accomplished by using a mechanical device (e.g., ultrasonic cleaner) and when necessary, scrubbing with soap and water or detergent. Dental health care workers involved in cleaning and decontaminating instruments should wear heavy-duty gloves to prevent hand injuries.

b. Metal or heat-stable dental instruments should be routinely sterilized between use by steam under pressure (autoclaving), dry heat, or chemical vapor. The adequacy of sterilization cycles will be verified at least weekly by biological monitors. Chemical indicators or multiple-parameter indicators will be used on the outside and inside of instrument packs to monitor adequacy of the sterilization cycle; however, chemical monitoring will not serve as a substitute for biological monitoring.

c. Air / water syringes will be sterilized if possible. All air / water syringe tips will be sterilized per manufacturer's recommendations. The syringe handle should be disinfected by washing and then using high level disinfection. Handles for the saliva ejectors and high-speed suction tips should be treated in the same manner. Use of disposable covers is an acceptable alternative to disinfection of air / water syringe handles, however, sterilization of the tip or use of disposable tips is still required.

5. Lids should be utilized on ultrasonic cleaners.

6. Disinfect all impressions prior to submission to the production area of the laboratory.

a. Following the removal of an impression from the mouth, the impression should be rinsed under running water and gently scrubbed with a camel hair brush and detergent to remove residual saliva, blood and debris. If this step is not followed, it will decrease the effectiveness of the disinfecting solution.

b. All impressions should be sprayed or dipped in an approved disinfectant and then allowed to sit for the proper contact time. They should then be rinsed before being poured. MAKE CERTAIN THE DISINFECTANT IS COMPATIBLE WITH THE IMPRESSION MATERIAL.

7. General Considerations for use of surface disinfectants.

a. Most disinfectants are corrosive. Either plastic or glass containers, without metal liners or metal lids are recommended. Manufacturers' recommend the use of covered containers to prevent evaporation of the solution. Spray bottles are ideal. Label all containers with the proper HAZCOM data and any expiration dates.

b. Certain metals will corrode in many disinfectants (eg. aluminum, 400 X stainless steel, brass, copper, copper containing alloys). Any metal instrument placed in a disinfectant solution should remain in contact with the solution for NO MORE THAN THE RECOMMENDED CONTACT TIME. Rinsing the items with water or wiping with water following exposure will reduce the potential for corrosion.

c. Solutions used for soaking instruments and other items should be changed according to manufacturer’s recommendations.

d. Do not store 4x4's or other cotton / natural fiber cleaning pads in a disinfectant, as the cotton acts as a bioburden and decreases the efficacy of the product.

Appendix K

DENCOM GUIDELINES FOR THE CARE OF HIV INFECTED PATIENTS AND ORAL PROBLEMS RELATED TO HIV INFECTION.

1. Patients with HIV infection must be afforded the same quality of care and confidentiality as any other patient. They will not be denied care because of their disease condition, and DHCWs will not refuse to care for eligible patients with HIV infection.

2. The decision to refer HIV-infected patients to hospital dental clinics or other special care settings should not be made solely on the basis of their HIV seropositive status. Rather, this decision should be based on sound medical principles. In the early stages of the disease, HIV-infected patients can be treated in routinely equipped dental treatment

rooms without undue risk. Special care settings are normally not required unless the patient has demonstrated significant disease progression and immunologic deficiency. Standard-universal precautions for infection control will be followed for all patients managed in both hospital and non-hospital clinics regardless of their HIV status or disease stage.

3. In conjunction with appropriate medical health care, the dental records of all identified HIV-infected patients will be properly marked and annotated in accordance with AR 600-110, paragraph 2-3c(13). DA Label 162 (Emergency Medical Identification Symbol) will be affixed to the dental record jacket and the statement "Blood Donor Ineligible-V7262" will be placed in the "Explain any unusual medical problems" section of the DA Form 5570 (Health Questionnaire for Dental Treatment). Dental records for HIV-infected patients should be available for use in emergency treatment facilities.

4. Dental care for patients who are infected but show no signs of HIV related disease should be focused on preparing them for an immunodeficient state should their disease progress (i.e., the same approach used for pre-chemotherapy patients). All efforts should be made to eliminate active or potential foci of infection. Non-restorable teeth should be removed. Teeth involved with periodontal disease and symptomatic or partially erupted third molars should be evaluated for removal. Excellent oral hygiene habits must be established and maintained. Patients should be routinely followed to monitor the oral cavity for unusual or persistent infections or other conditions which may herald the deterioration of the patient's immune system.

5. Dental treatment for patients with severe immunologic deficiency should be accomplished only after consultation with their primary physician. Appropriate antibiotic prophylaxis may be required prior to invasive dental procedures.

6. Patients who present with signs and / or symptoms suggestive of, or compatible with, HIV infection should be referred to the appropriate hospital service for consultation and testing as appropriate (AR 600-110, paragraph 2-2b).

Appendix L

DENTAL LABORATORY INFECTION CONTROL

1. General precautions:

a. The dental laboratory production area must be isolated from possible transmission of pathogens or be properly prepared to prevent cross contamination from patients and dental health care workers (DHCW) to other patients and other workers. Dental laboratory technicians must be properly evaluated for the exposure risk they face from bloodborne pathogens IAW OSHA Rule 29 CFR 1910.1030 (Occupational Exposure to Bloodborne Pathogens, Final Rule).

b. Dental laboratories must operate using one of two general techniques to manage infection control. The laboratory can be maintained as an isolated area and require all prostheses, impressions, and other laboratory work to be disinfected before entering the laboratory (Clean Dental Laboratory). The second method requires a receiving area to isolate, evaluate, and decontaminate all materials entering the laboratory (Standard Dental Laboratory). Both methods are effective and the choice would be dependent on physical plant, laboratory location, and personnel distribution. The greatest need is for effective communication between the laboratory and the user/client concerning the requirements for case submission, and the proper steps to insure disinfection of materials both entering and leaving the laboratory.

c. Standard-universal precautions will be observed in the dental laboratory at all times. The use of standard-universal precautions eliminates the need for special handling of cases from "high risk" patients. All patients are treated as though they are capable of transmitting a bloodborne disease.

d. Chemical disinfectants and other materials must meet all Environmental Protection Agency (EPA) and American Dental Association (ADA) programs for acceptance. All employees must be properly trained to handle these materials.

2. Standard dental laboratory infection control.

a. Receiving Area:

(1) A receiving area must be established to handle all items entering the laboratory. This receiving area should have running water and handwashing facilities. This area and counter surface should be covered with impervious paper if possible, and cleaned and disinfected on a regular basis determined by the use level of the area. No item can enter the production area without being properly disinfected (See Section 4 for proper methods of disinfection).

(2) The receiving area technician must use all proper PPE to include a gown or coat that will remain in the contaminated work area, glasses with solid side shields or a face shield and face mask for protection from splatter, and gloves (disposable latex or reusable nitrile latex) for handling contaminated items. All items will be handled in an aseptic manner and transferred to the production area after the proper disinfection steps have been used (see section 4 for proper methods of disinfection).

(3) Disposable trays, impression material, and other waste generated in the receiving area will be disposed of IAW OSHA Rule 29 CFR 1910.1030, AR 40-5, State laws, and local Medical Command and Dental Command policies. Unless waste falls into the category of regulated medical waste, these materials may be disposed of in the standard waste containers. Regulated waste definitions are also controlled by the state and / or area of the waste producing facility. Under most circumstances, very small amounts of regulated waste will be generated in the dental laboratory. All disposables that can be considered as a sharps item (orthodontic wire, disposable blades, burs, etc.) must be disposed of in proper containers designated as a "sharps" disposal container. All reusable items must be considered contaminated until such items are properly processed for reuse. If packing material has been contaminated and cannot be disinfected, it should be discarded.

b. Shipment Area: The area designated for final inspection, cleaning and / or disinfection, and shipping must be properly managed for all items leaving the dental laboratory. The cleaning and / or disinfection of all items leaving the laboratory is essential. This will preclude any contamination from the technician or the laboratory from reaching the DHCW or patient. The level of contamination would be determined by laboratory policy and procedures. Most dental laboratory operations do not expose cases to bloodborne pathogens, therefore no special handling is needed during this stage. If some type of contamination by a possible bloodborne pathogen occurs during the production cycle, proper hospital level disinfection procedures will be used.

(1) This area cannot be the same as the receiving area unless it has been properly cleaned and disinfected after all cases have been received. Technicians must wear proper PPE for the chemicals used at this station. Because of handling during shipment, all cases will be disinfected at the clinic level before placing in a patient's mouth.

(2) All case pans must be cleaned before they are returned to use for a new case.

c. Production Area: The production area is managed according to standard safety requirements. The items and materials in the production area have been disinfected and no special handling is needed. Laboratory staff must monitor the use and entrance into this area to insure no contaminated item or person is allowed. Some equipment and tools need special attention in all production areas of the dental laboratory and are discussed in section 5.

3. Clean dental laboratory.

a. Receiving area. The dental laboratory managed under an isolated concept needs no special precautions in the receiving area. All disinfection procedures are done in the clinic by the DHCW before any material or item is shipped or delivered to the laboratory. All laboratory users must be aware that only biologically clean items may enter the laboratory. All laboratory users / clients should stamp or annotate on the work authorization, "This case was properly disinfected before shipment" (see section 4 for clinical disinfection techniques).

b. Shipping area. The shipping area in this laboratory is run in an identical manner as the Standard Dental Laboratory (see section 2b).

c. Production Area. The production area in this laboratory is run in an identical manner as the Standard Dental Laboratory (see section 2c).

4. Clinical and laboratory disinfection.

a. Materials and techniques:

(1) Impressions:

(a) Reversible and irreversible hydrocolloid material must be handled carefully to prevent distortion. The impression should be gently scrubbed with a camel hair brush (artists brush NSN 8020-00-619-8929) and an antimicrobial (e.g. chlorhexidine gluconate) detergent to remove bioburden. Scrubbing gently with dental stone sprinkled into the impression will remove stubborn materials. The impressions should be thoroughly soaked by spraying with or dipping in a hospital level disinfectant. Choice of disinfectant should be compatible with the material. The contact time recommended by the manufacturer must be observed. The impressions should be loosely wrapped in a plastic bag to prevent evaporation of the disinfectant during the contact period. The impression should be rinsed, handled in an aseptic manner and transferred to the production area of the laboratory.

(b) Silicone (vinyl polysiloxane) or rubber based impression material may be handled in the same manner as Section 4a(1)(a). These materials are much more stable and can also be immersed in any hospital level disinfectant, except neutral glutaraldehyde, for the contact time recommended by the manufacturer.

(c) Polyether impression material may be handled in the same manner as section 4a(1)(a). Polyether materials CANNOT be immersed in a disinfectant solution.

(2) Prostheses, intertreatment prosthodontic materials (occlusion rims, interim prostheses, occlusal registrations, etc.), and non-sterilizable equipment such as some facebow components must be cleaned with soap and water and disinfected with a hospital level disinfectant. If ultrasonic cleaners are used for cleaning or the disinfecting step, care must be taken not to overheat the material or disinfectant while in the ultrasonic cleaner. Soaking these items in the disinfectant in a separate container or bag is the method of choice. It is important to remember that most immersion disinfectants can only be used once before they should be discarded. This makes individual size units the most cost effective method of handling. After the recommended contact time the item is rinsed and handled in an aseptic manner for transfer to the laboratory production area. Care must be taken not to exceed manufacturers recommendations for contact time on metal components as corrosion could occur if not handled correctly. If the disinfection is occurring prior to patient contact, the item must be rinsed properly before placing in a patient's mouth. Items should never be shipped or stored in chemical disinfectants.

(3) Casts are the most difficult prosthodontic item to disinfect without causing damage. It is preferable to disinfect the impression so the cast will not have to be disinfected. However, inadvertent contamination or no indication of decontamination may make cast disinfection necessary. Casts may be set on their ends to facilitate drainage and sprayed with an iodophor or chlorine product, then rinsed and handled in an aseptic manner for transfer to the production area. If the cast is being disinfected for shipping, it should be allowed to dry before wrapping for shipment.

(4) Articulators, case pans, and other equipment that make no patient contact but require cleaning and disinfection should be evaluated based on their construction. Most can be disinfected by spraying with a hospital level disinfectant, rinsing, drying, and lubricating (items with moving parts). Prevention of contamination by barrier protection and careful handling is preferable to using chemical agents on delicate equipment.

(5) Any item that will withstand standard heat sterilization should be sterilized before reuse.

5. Laboratory equipment and infection control.

a. No matter how well infection control is practiced, some equipment should receive special attention even in the "clean" laboratory. This will place one more barrier in the path of possible cross contamination and provide less chance of introducing laboratory contamination during the production cycle.

(1) Polishing Lathe (Pumice and Dry):

(a) The pumice solution should be made by suspending the pumice in tincture of green soap. If the laboratory production area is properly isolated as outlined, no need exists for having separate pans for new and existing prostheses. The pumice must be changed daily and the machine must be cleaned and disinfected daily. If a pumice / polishing machine is available outside the production area for DHCWs to use and no disinfection procedures are followed before contact with contaminated prostheses,

then a unit dose concept of pumice dispensing is preferred. Disposable trays or liners should be considered in the latter case. This unit must be cleaned and disinfected daily.

(b) All brushes, rag wheels, and other laboratory tools should be cleaned daily. If a pumice / polishing machine is available outside the production area for DHCWs to use and no disinfection procedures are followed before contact with contaminated prostheses, then a unit dose concept of accessory packaging should be available.

(2) Pressure pots must be cleaned daily. Pots which maintain warm water environments are especially susceptible to microorganism colonization.

(3) Bench tops and work areas should be cleaned at the end of the work day or if inadvertent contamination occurs. Surface disinfection protocols are the same in the dental laboratory as in the dental clinic.

6. Special considerations and exceptions.

a. Severely contaminated prosthetic devices may have copious amounts of calculus and other tenacious bioburden. The first step is to remove this material so effective decontamination can occur. Stone and plaster removal solution in a beaker or plastic bag for soaking and placing in an ultrasonic cleaner will remove most of the material. Follow this step with cleaning in a detergent and then disinfect with the procedures discussed in Section 4.

b. Some items may not be able to withstand disinfection procedures prior to entrance into the laboratory production area (ie., staining and glazing porcelain, etc.) and exceptions to the basic principle of disinfecting first may be made. The procedure must be followed closely and proper cleaning and disinfecting must be done on equipment and areas that become contaminated during the process. Again, close communication with laboratory staff is essential.

7. Summary. Whatever laboratory infection control methods are employed, it is important to have excellent communication and cooperation between the laboratory and the user / client. The safety of the technician and patient is only insured by confidence that both professionals used the proper procedures in the correct manner. Whenever a question exists as to the possible contamination of an item entering the laboratory system it should be treated as contaminated until processed by prescribed methods.

Appendix M

DENTAL RADIOLOGY

1. Introduction: Infection control standards similar to those used in the DTR must be maintained in the dental radiology area for the protection of both patients and radiology personnel.

2. Hand Washing: A rigid hand washing policy must be followed by all personnel involved with radiology patients.

3. Film Holding Devices:

a. Sterilization: Film holding devices should be heat sterilized between patients.

b. Disinfection: If sterilization is not practical, bite blocks, aiming devices and arms should be thoroughly scrubbed and then immersed in an approved disinfectant between patients according to the manufacturer's instructions.

4. Panoramic Unit Bite Blocks: Disposable bite block covers should be used between patients. When disposable covers are not available, treat them as you would a film holding device. Use an approved disinfectant according to manufacturer's instructions.

5. Handling Intraoral Film Packets: Intraoral film removed from a patient's mouth should be placed directly into a disposable container such as a paper cup or towel and transferred to the darkroom. Wrappers should be discarded directly into a refuse container or into a disposable towel or cup to prevent contamination of the darkroom counter. An

approved disinfectant will be used on counter tops, light switches and other hard surfaces in processing room. Disinfection of x-ray packets using accepted disinfectants is acceptable. Barrier protection of film is also acceptable.

6. Radiology Equipment: Chair, armrests, x-ray machine and its controls (pay special attention to areas touched by hand during radiology procedures) should be sprayed or wiped with an approved disinfectant for the appropriate time IF THEY BECOME CONTAMINATED. Paper or plastic headrest covers when used, shall be replaced after each patient before gloves are removed. (Do not allow disinfectant liquid to leak into the tubehead seams on the exposure button switch.)

7. Control Surfaces: Impervious paper or plastic covers can be applied to cones, arms and controls.

8. Personal Protective Equipment: Radiology technicians should wear proper PPE.

Appendix N

CLINIC CHECKLIST GUIDELINES FOR INFECTION CONTROL

1. All dental health care workers wear surgical masks, eyewear with sideshields, gloves, or other appropriate PPE as needed.

2. Clear plastic wrap, aluminum foil, or impervious backed paper coverings are used on light handles, x-ray unit heads, cones, arms, control panels, and other areas as needed.

3. Handwashing between patients and after glove removal.

4. Disposable syringes, needles, and scalpel blades are handled and disposed of IAW AR 40-5.

5. Self sheathing needles should always be used. If they are not available, syringes should be recapped with a two handed technique.

6. Sterilization of all instruments is preferred (autoclave).

7. When sterilization is not feasible, use EPA approved high level disinfectant.

8. Dental health care workers cleaning and decontaminating instruments should wear heavy duty nitrile latex rubber gloves.

9. Biological monitoring of sterilizer cycles is mandatory(TB Med 266).

10. Chemical indicators on the inside and / or outside of instrument packs.

11. Countertops / bracket tables wiped with absorbent toweling and appropriate cleaner / disinfectant and allowed to remain for the proper time interval if contaminated during patient treatment.

12. Handpiece sterilization - follow maintenance instructions.

13. Ultrasonic scalers, electrosurgery handles, lightcuring units need proper barrier protection or disinfection. They may be sterilized or:

a. Wiped with an approved disinfectant on a soaked pad.

b. Let remain for the recommended contact time.

c. The chemical residue is removed with a damp cloth if necessary.

d. Barrier protection is an acceptable alternative to disinfection.

14. All general and infectious waste is handled and disposed of IAW AR 40-5 and local regulations.

Appendix O

DENTAL RADIOLOGY CHECKLIST GUIDELINES FOR INFECTION CONTROL

1. Gloves must be worn at appropriate times.

2. Impervious paper or plastic cover applied to x-ray cones, arms, and controls as needed.

3. Surface disinfectant used for chair (if vinyl), headrest, armrest, x-ray machine and its controls if contaminated. (Pay special attention to areas touched by hand during x-ray procedure).

4. Allow surface disinfectant adequate contact time. Then remove residue if necessary.

5. Place film in plastic cup or bag, label appropriately.

6. Appropriate surface disinfectant used to disinfect countertops, light switches and other hard surfaces in processing room if contaminated.

7. Radiology technician should wear proper PPE.

Appendix P

LABORATORY INFECTION CONTROL - DAILY CHECKLIST

1. The pumice pan liner should be changed / cleaned at the end of each working day.

2. Pumice can be mixed with an approved disinfectant solution rather than water. The contents of the pumice pan should be changed daily.

3. Rag wheels, bristle brushes and felt cones that are used with pumice should be soaked in a plastic container filled with an approved disinfectant solution between use. The solution must be changed daily.

4. Rag wheels used for polishing other than with pumice (tripoli, high shine, etc.) must be collected at the end of the day, packaged and logged in for sterilization. The laboratory personnel are responsible for this procedure as well as retrieving the items at the end of the sterilization cycle and returning them to the appropriate storage areas in the laboratory. BRISTLE BRUSHES AND CHAMOIS WHEELS CANNOT BE AUTOCLAVED WITHOUT HARMING THE ITEMS. Soak contaminated bristle brushes and chamois wheels overnight in an approved disinfectant solution.

5. Environmental surfaces (laboratory benches, work surfaces and sinks) must be sprayed with an approved disinfectant solution at the end of the day if contamination has occurred. Gloves should be worn to wipe down environmental surfaces with either solution-saturated paper towels or sponges. The solution should be left on the surfaces for the time recommended.

6. All repairs and prostheses should be disinfected for the proper time BEFORE the item enters the laboratory production area. Before returning repairs and prostheses to the treatment area, the items should be cleaned properly. Rinse items with water after cleaning.

7. It is necessary that the checklist be observed by laboratory personnel for their own protection.

a. Personnel working in the dental laboratory should exercise personal hygiene as outlined in appendix E.

b. The cleaning and disinfecting of impressions, prosthesis, etc., may help in reducing cross contamination to laboratory personnel. Lab personnel must wash their hands frequently when handling cases and especially when changing cases. A laboratory infection control checklist will be readily accessible to all laboratory personnel.

8. A plan must be in place to handle any situation that may arise in the production area that contaminates a prosthesis or area with blood or body fluids from a technician.

Appendix Q

DENTAL INPROCESSING CENTERS AND ALL CLINIC EXAM AREAS WHERE NO INVASIVE TREATMENT IS PROVIDED

1. This appendix delineates those areas of operational differences that do not require the stringent procedures required in other clinical areas.

2. There are four areas that require modification. These areas are:

a. Employee barrier protection.

b. Equipment wipe down - surface disinfection.

c. Sterilization.

d. Waste disposal.

3. All procedures as they apply to barrier protection will be followed where applicable.

a. Proposed modification. Dental assistants will not be required to wear gloves, masks, eye protection or protective outerwear while assisting the dentist at chairside.

b. Justification for modification to policy. During dental examinations where no invasive or aerosol procedures are being performed, the dental assistant is not in direct contact with the patient or contaminated dental instruments or supplies. Because of the non-patient contact status of the assistant, barrier protection is not required. The examining dentist is the only staff member in direct contact with the patient and will wear mask, eye protection, gloves and a smock or gown. Care should be taken by the assistant to avoid contact with contaminated instruments and / or surfaces. Any contact made with contaminated areas necessitates the wearing of gloves. Disposal of coverings for light handles and bracket table covers should be done by a gloved individual. The dentist will dispose of instruments in the sink or other receptacle following the exam. The dentist should not make entries in the record while still wearing contaminated gloves.

4. All procedures as they apply to surface disinfection will be followed where applicable.

a. Proposed modification. Chairs, lights, and counter tops in the examination rooms will not be routinely disinfected by use of surface disinfectants.

b. Justification for modification to policy. The need for disinfection by scrubbing with soap, water, and disinfectant between each patient is unnecessary due to a lack of aerosols, surgical debris, and body fluids. The high volume of patients and continuous flow of troops makes it impractical. Disposable items such as aluminum foil coverings for light handles and plastic head rest covers will be routinely used and disposed of after each patient. Removal of all contaminated instruments, bracket table covers, two-by-two's, etc. following treatment of each patient is mandatory.

5. TB Med 266 as it applies to sterilization of equipment and instruments will be followed where applicable.

a. Proposed modification. Examination instruments will be cleaned and sterilized and bagged in bulk.

b. Justification for modification to policy. The high volume of patients and continuous flow of soldiers does not allow for instrument storage for over a day and makes it impractical to process instruments individually. The sterilization procedures prescribed TB Med 266 apply. As indicated in this memorandum, all instruments will be thoroughly cleaned to remove debris prior to sterilization. Cleaning may be accomplished by scrubbing with soap and water or detergent or by using a mechanical device. All dental assistants will wear heavy duty rubber gloves during this procedure. Sterilization of metal or heat stable dental instruments should use steam under pressure (autoclaving), or dry heat or chemical vapor.

6. All procedures as they apply to waste disposal will be followed at the Dental Inprocessing Center / Exam area where applicable.

a. Proposed modification. There is no requirement for the use of a sharps disposal container at the Dental Inprocessing Center.

b. Justification for modification to policy. The absence of dental sharps (needles, scalpel blades) at the Dental Inprocessing Center will preclude the need for special sharp disposal containers. The #23 explorer, the only sharp instrument, will be handled while wearing heavy duty rubber gloves and considered potentially infective. Assistant should use extreme care to prevent injuries. A sharps container will be available for broken glass disposal.

Appendix R

SHARPS MANAGEMENT
BLOODBORNE PATHOGEN EXPOSURE PROCEDURE

Definition: Sharps are any object or instrument with the potential of causing a percutaneous injury to the patient, care provider, or ancillary personnel. All disposable sharps, and broken glass will be disposed of in proper sharps containers.

1. No hypodermic type needles will be passed between personnel with or without the protective cover in place. Self-sheathing needles should always be used for providing local anesthetics. If self-sheathing needles are not available, recapping of conventional syringes is allowed due to the incremental use of dental anesthetics. The user should remove the cover, use the instrument, and recap the needle. Recapping the needle shall NOT be done by a two handed method. Cotton pliers, approved devices, or a one-handed scoop technique will be used to recap. No unprotected needles will be in the operating field. Shearing or breaking contaminated needles is not allowed.

2. Dental burs and scaler tips shall not be left in the handpiece after the care provider finishes use of the handpiece. The burs and scaler tips shall be removed and placed in a dappen dish or other suitable container for cleaning. Removal should be accomplished by the instrument user.

3. Knife blades, suture needles, and other sharps should be accounted for first during clean-up. These sharps should be handled with cotton pliers or forceps and disposed of in the proper manner before the clean-up proceeds.

4. Endodontic instruments should not be passed to ancillary personnel for cleaning during endodontic procedures. The care provider should have supplies available to treat the instrument as he / she deems appropriate.

5. No contaminated sharps (knife blades, etc.) can be taken from the patient care area into the laboratory. All items that enter the laboratory must be properly disinfected.

6. During clean-up all sharps should be handled as outlined. Personnel must wear heavy duty cleaning gloves during instrument cleaning operations. Disposable sharps should be removed from the cleaning area first. All reusable instruments that have potential for percutaneous injury should be handled carefully when packaged for sterilization.

7. Most sharps injuries are caused by careless handling of instruments. Broken glassware must be cleaned up using mechanical means, such as a dust pan and tongs.

8. If an injury does occur while handling sharps, consult the Clinic NCOIC and the Clinic Infection Control Officer.

BLOODBORNE PATHOGEN EXPOSURE PROCEDURE

In the event that a DENTAC worker experiences an on-the-job needle / sharp instrument stick or mucous membrane exposure to patient body fluids, the worker will immediately report the incident to his / her supervisor. If the source is known, make sure you have their name, social security number, physician, contact phone number, a brief history of the source, and consent to have blood specimens drawn.

RESPONSIBILITIES:

A. EMPLOYEES:

(1) Report any Bloodborne Pathogen Exposure, needlestick, splash, or laceration to their supervisor **immediately** .

(2) **Report** (by phone or in person) **to the Occupational Health Clinic**, 526-2939, Building 6255, **ASAP** for counseling and follow-up.

(3) Based on the completed HIV Risk Assessment form, an evaluation may be required **WITHIN 1 HOUR** by the Preventive Medicine Physician or the MOD to determine the need for antiretroviral medications. For maximum effectiveness the medications need to be initiated within the first 1-2 hours following the exposure.

B. SUPERVISORS:

(1) **IMMEDIATELY COMPLETE THE HIV RISK ASSESSMENT FORM AND SUBMIT TO OCCUPATIONAL HEALTH CLINIC.**

(2) Based on the completed form, contact Preventive Medicine Physician or MOD **immediately** for recommendation of post exposure prophylaxis.

(3) Issue and complete report forms as follows:

(a) DOD Civilian Employees:

(1) CA-1 (OWCP form / injury Report).

(2) CA-16 (OWCP form / authorization for Medical Care) if employee requires medical treatment.

(b) Military Employees:

(1) DA form 689 (Sick Slip).

(c) Da form 4106 (Quality Assurance / Risk Management Document and send to DENTAC Risk Manager).

(4) Obtain **SOURCE** (Patient) information.

(a) Order Source lab tests and assure specimen collection.

(1) Requesting location: Occupational Health Clinic (BHGA).

(2) Ordering Health Care Provider: LTC Bradley, Kent L.

(b) On a Miscellaneous Lab Slip or thru CHCS order: LAB SET, BBP EXP SOURCE.

(c.) Lab work requires three tiger top tubes.

(5) **EXPOSED** (Health Care Worker)

(a) Order Exposed lab tests and assure specimen collection.

(1) Requesting location: Occupational Health Clinic (BHGA).

(2) Ordering Health Care Provider: LTC Bradley, Kent L.

(b) On a Miscellaneous Lab Slip or thru CHCS order: LAB SET, BBP EXP HCW.

(c.) Lab work requires three tiger top tubes.

(6) **Refer Employee to:**

(a) Occupational Health Clinic Monday thru Friday 07:30 - 12:00 1300 - 1600 (excluding Holidays) Building 6255, 526-2939.

C. OCCUPATIONAL HEALTH CLINIC WILL:

(1) Counsel employee about BBP exposure

(2) Review employee's Hepatitis B Immunization status, begin or complete as necessary.

(3) Provide follow-up written counseling, once all lab results are available.

(4) Provide additional follow-up testing as indicated.

Appendix S

INFECTIOUS WASTE -AMALGAM WASTE HANDLING

1. The CDC and OSHA have defined infectious waste in dentistry. The following definition from OSHA is found in the ADA Regulatory Manual. See TB Med 266 for further information.

"Infectious waste means blood and blood products, contaminated sharps, pathological wastes, and microbiological waste."

2. The ADA makes a further clarification by stating "for most dental offices only sharps, extracted teeth and blood or other potentially infectious body fluid soaked items fit the OSHA definition of infectious wastes."

a. The following items are generally considered infectious waste:

(1) Contaminated sharps.

(2) Teeth and tissues that are to be discarded. Teeth belong to the patient. Most states do not consider teeth that are given back to the patient a significant health hazard. Army policy allows the return of extracted teeth to patients if the care provider feels no community health hazard will be created by this act. Teeth can also be disinfected in a 10 percent solution of sodium hypochlorite before allowing patients to take them.

(3) Blood and body fluids in bulk.

(4) Blood or other potentially infectious body fluid soaked items. (gauze, cotton, etc.)

3. Item number 2a(1) is handled according to Appendix R.

4. Item number 2a(3) is disposed of in the local sanitary sewer system by carefully pouring into a drain access.

5. Items number 2a(2) and 2a(4) can be handled in the following manner. All tissue, teeth, and blood or other potentially infectious body fluid soaked (enough fluid to produce a drop when squeezed) items will be gathered during patient cleanup and placed in an autoclave bag and sealed. This bag will be sterilized according to TB Med 266 in an autoclave designated for that procedure. After sterilization the waste can be placed in the normal waste disposal system. (OSHA Instruction CPL 2-2.44C, page B-10 and Federal Register VOL 56, #235, page 64163)(STATE OR LOCAL REGULATIONS MAY PROHIBIT THIS METHOD OF DISPOSAL). Infectious waste can also be gathered, properly contained, and disposed of IAW AR 40-5, OSHA regulations, and state and local regulations. Packaging and labeling of untreated infectious waste must meet all local, state, federal regulations and guidelines.

6. Regulated Medical Waste containers must have a bio-hazard sticker, their lid must stay in the closed position, they must be lined with a red bag, and they must have a

cleaning schedule.

7. Amalgam waste handling: Scrap amalgam can be safely stored in a sealable container, such as a plastic bag or specimen jar, with no other chemical component. The container needs to be labeled according to HAZCOM (29 CFR 1910.1200) standards. Scrap amalgam that has not been in a patient's mouth can be placed directly into this container. No evidence exists that amalgam suctioned or removed from a patient's mouth is infectious. However, to simplify scrap turn-in concerns, all contaminated amalgam should be disinfected with an intermediate level disinfectant, and dried before placing it in the storage container. For scrap turn-in, the HAZCOM label should remain on the container along with a label stating the contents have been disinfected. The local DSMRO should accept this material with no complaint.

The United States Army Dental Corps Policy is:

1. Store dry scrap amalgam in a sealable plastic container.
2. Disinfect contaminated scrap amalgam.
3. Affix a proper HAZCOM label.
4. Affix a label stating that the amalgam has been disinfected.
5. Properly turn-in the scrap amalgam to local DSMRO.

Appendix T

TB INFECTION CONTROL PLAN

1. A risk assessment of the USA DENTAC, Fort Carson, CO has been performed for TB according to the CDC's 1994 Guidelines for Preventing the Transmission of M. Tuberculosis in the Health Care Facility. The clinics in the DENTAC have a risk rating of Very Low.

2. To identify potential TB patients, when examined, all patients will be asked to complete a patient medical history. It will ask about previous medical conditions to include TB. If a positive response to TB is indicated, the health care provider will ask about symptoms.

- History of TB
- Persistent cough lasting longer than three weeks.
- Bloody sputum
- Night sweats
- Weight loss
- Anorexia
- Fever

3. Suspected or active TB Patients in the dental clinic will be given a surgical mask to wear, or tissues to hold over the mouth while talking or coughing. This is a temporary measure to reduce droplet nuclei until referral can be made.

4. Patients that are suspected of having TB will be promptly referred to Evans Army Community Hospital for treatment.

5. Elective dental treatment should be deferred until a physician confirms that the patient does not have infectious TB. If the patient is diagnosed as having active TB, elective dental treatment should be deferred until the patient is no longer infectious.

6. If urgent dental care must be provided for a patient who has, or is strongly suspected of having infectious TB, the patient should be treated in a negative pressure isolation

room at Evans Army Community Hospital using portable dental equipment. The dental health care providers must wear appropriate PPE including a High-Efficiency Particulate Airfiltration (HEPA) respirator. While providing care for individuals admitted with suspected or known infectious TB, the urgent dental treatment should be completed as expeditiously as possible following all standard-universal precautions. Any elective treatment should be deferred until the patient is confirmed non-infectious.

TUBERCULOSIS IN HEALTH CARE SETTINGS

1. The CDC and OSHA have set guidelines for the safety of health care workers and patients in regard to preventing the transmission of tuberculosis. The guidelines vary for the type of health care setting and require certain work practice and engineering controls.

2. Hospital Dental Facilities: All hospital based dental care facilities are required to adhere to the isolation and treatment protocols determined by the medical facility in which they are located. Routine dental treatment of active tuberculosis patients should be postponed until medical authorities clear these patients as non-infectious. If treatment of an active tuberculosis patient becomes necessary, all PPE and / or other requirements of the medical facility must be met. Treatment of dental emergencies in the hospital isolation area would be the method of choice to reduce exposure of other dental patients and personnel in the dental treatment facility. OICs of these facilities will contact the appropriate medical personnel to determine if their clinic will be serving a large enough population of "patients who are at high risk for tuberculosis" as to require ventilation modification of waiting areas or treatment rooms. Consultation with DENCOM is encouraged in determining this requirement. This would be an extremely rare occurrence.

3. Dental Settings: Comments in italics are taken from the CDC Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Facilities, 1994, MMWR 43, #RR-13, 1994. The risk assessment mentioned in the first bullet must be done in writing and placed with your exposure control documents. The Preventive Medicine section of your local medical facility may be able to provide the information needed. Each dental unit should also contact the local medical facility to determine if a dental officer needs to be placed on the TB respiratory protection team in case the need arises to have a dental health care provider provide dental treatment in a TB isolation area.

"In general, the symptoms for which patients seek treatment in a dental-care setting are not likely to be caused by infectious TB. Unless a patient requiring dental care coincidentally has TB, it is unlikely that infectious TB will be encountered in the dental setting. Furthermore, generation of droplet nuclei containing M. tuberculosis during dental procedures has not been demonstrated. Therefore, the risk of transmission of M. tuberculosis in most dental settings is probably quite low. Nevertheless, during dental procedures, patients and dental workers share the same air for varying periods of time. Coughing may be stimulated occasionally by oral manipulations, although no specific dental procedures have been classified as "cough inducing." In some instances, the population served by a dental-care facility, or the HCWs in the facility, may be at relatively high risk for TB. Because the potential exists for transmission of M. tuberculosis in dental settings, the following recommendations should be followed:

A risk assessment should be done periodically, and TB infection-control policies for each dental setting should be based on the risk assessment. The policies should include provisions for detection and referral of patients who may have undiagnosed active TB; management of patients with active TB, relative to provision of urgent dental care; and employer-sponsored HCW education, counseling, and screening.

While taking patient's initial medical histories and at periodic updates, dental HCWs should routinely ask all patients whether they have a history of TB disease and symptoms suggestive of TB.

Patients with a medical history or symptoms suggestive of undiagnosed active TB should be referred promptly for medical evaluation of possible infectiousness. Such patients should not remain in the dental-care facility any longer than required to arrange a referral. While in the dental-care facility, they should wear surgical masks and should be instructed to cover their mouths and noses when coughing or sneezing.

Elective dental treatment should be deferred until a physician confirms that the patient does not have infectious TB. If the patient is diagnosed as having active TB, elective dental treatment should be deferred until the patient is no longer infectious.

If urgent dental care must be provided for a patient who has, or is strongly suspected of having, infectious TB, such care should be provided in facilities that can provide TB isolation. Dental HCWs should use respiratory protection while performing procedures on such patients.

Any dental HCW who has a persistent cough (i.e., a cough lasting ≥3 weeks), especially in the presence of other signs or symptoms compatible with active TB (e.g., weight loss, night sweats, bloody sputum, anorexia, and fever), should be evaluated promptly for TB. The HCW should not return to the workplace until a diagnosis of TB has been excluded or until the HCW is on therapy and a determination has been made that the HCW is noninfectious.

In dental-care facilities that provide care to populations at high risk for active TB, it may be appropriate to use engineering controls similar to those used in general-use areas (e.g., waiting rooms) of medical facilities that have a similar risk profile."

4. OSHA Recommendations: Current OSHA recommendations concerning tuberculosis and dentistry are found in the Federal Register dated October 12, 1993, Draft Guidelines for Preventing the Transmission of Tuberculosis in Health Care Facilities, Second Edition: Notice of Comment Period, page 52828, paragraph 8, Dental offices. That guidance is reproduced in the following section.

a. OSHA GUIDELINES: The following excerpt is from the 1993 OSHA guideline which is NOT the final regulation.

"8. Dental offices.

During dental procedures, patients and dental workers share the same airspace for varying lengths of time. Aerosols of oral fluids and materials may be generated, and, on occasion, coughing may be stimulated by oral manipulations. No specific dental procedures have been classified as "cough-inducing". In light of these observations, the following considerations appear prudent in dental settings.

-During initial medical history and periodic updates, dental HCWs should routinely ask all patients about a history of TB disease and symptoms suggestive of TB.

-Patients with history and symptoms suggestive of active TB should be promptly referred for evaluation for possible infectiousness.

-Elective dental treatment should be delayed until a physician confirms that the patient does not have infectious TB. If the patient is determined to have infectious TB, elective dental treatment should be deferred until the patient is no longer infectious.

-If urgent dental care must be provided for a patient who has, or is strongly suspected of having infectious TB, TB isolation practices should be implemented. Dental HCWs should use respiratory protection while performing procedures on such patients.

-Dental HCWs who work in a facility where there is a likelihood of exposure to patients with infectious TB should be included in an employer sponsored PPD testing program."

Appendix U

THE FOLLOWING TEXT IS THE OSHA REGULATION CONCERNING BLOODBORNE PATHOGENS
(2001 revision is in **bold** font.)

29 CFR 1910.1030

(a) *Scope and Application*. This section applies to all occupational exposure to blood or other potentially infectious materials as defined by paragraph (b) of this section.

(b) *Definitions*. For purposes of this section, the following shall apply:

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.

Blood means human blood, human blood components, and products made from human blood.

Bloodborne Pathogens means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Clinical Laboratory means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

Contaminated means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

Contaminated Laundry means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

Contaminated Sharps means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

Decontamination means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

Director means the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

Engineering Controls means controls (e.g., sharps disposal containers, self-sheathing needles, **safer medical devises, such as sharps with engineered sharps injury protections and needleless systems**) that isolate or remove the bloodborne pathogens hazard from the workplace.

Exposure Incident means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

Handwashing Facilities means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

Licensed Healthcare Professional is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph (f) Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

HBV means hepatitis B virus.

HIV means human immunodeficiency virus.

***Needleless systems* means a device that does not use needles for:**
(1) The collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established;
(2) The administration of medication or fluids; or
(3) Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

Occupational Exposure means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

Other Potentially Infectious Materials means

(b)(1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;

(b)(2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and

(b)(3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Parenteral means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

Personal Protective Equipment is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

Production Facility means a facility engaged in industrial-scale, large-volume or high concentration production of HIV or HBV.

Regulated Waste means liquid or semi-liquid blood or other potentially infectious materials, contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

Research Laboratory means a laboratory producing or using research-laboratory-scale amounts of HIV or HBV. Research laboratories may produce high concentrations of HIV or HBV but not in the volume found in production facilities.

Sharps with engineered sharps injury protections **means a nonneedle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.**

Source Individual means any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

Sterilize means the use of a physical or chemical procedure to destroy all microbial life Including highly resistant bacterial endospores.

Universal Precautions is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

Work Practice Controls means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

(c) *Exposure control*-(1) *Exposure Control Plan*. (i) Each employer having an employee(s) with occupational exposure as defined by paragraph (b) of this section shall establish a written Exposure Control Plan designed to eliminate or minimize employee exposure.

(c)(1)(ii) The Exposure Control Plan shall contain at least the following elements:

(c)(1)(ii)(A) The exposure determination required by paragraph(c)(2),

(c)(1)(ii)(B) The schedule and method of implementation for paragraphs (d) Methods of Compliance, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, (g) Communication of Hazards to Employees, and (h) Recordkeeping, of this standard, and

(c)(1)(ii)(C) The procedure for the evaluation of circumstances surrounding exposure incidents as required by paragraph (f)(3)(i) of this standard.

(c)(1)(iii) Each employer shall ensure that a copy of the Exposure Control Plan is accessible to employees in accordance with 29 CFR §1910.20(e).

(c)(1)(iv) The Exposure Control Plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure. **The review and update of such plans shall also:**

(c)(1)(iv)(A) Reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens; and

(c)(1)(iv)(B) Document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

(c)(1)(v) An employer, who is required to establish an Exposure Control Plan shall solicit input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identification, evaluation, and selection of effective engineering and work practice controls and shall document the solicitation in the Exposure Control Plan.

(c)(1)(v**i**) The Exposure Control Plan shall be made available to the Assistant Secretary and the Director upon request for examination and copying.

(c)(2) *Exposure determination*. (i) Each employer who has an employee(s) with occupational exposure as defined by paragraph (b) of this section shall prepare an exposure determination. This exposure determination shall contain the following:

(c)(2)(i)(A) A list of all job classifications in which all employees in those job classifications have occupational exposure;

(c)(2)(i)(B) A list of job classifications in which some employees have occupational exposure, and

(c)(2)(i)(C) A list of all tasks and procedures or groups of closely related task and procedures in which occupational exposure occurs and that are performed by employees in job classifications listed in accordance with the provisions of paragraph (c)(2)(i)(B) of this standard.

(c)(2)(ii) This exposure determination shall be made without regard to the use of personal protective equipment.

(d) *Methods of compliance*-(1) *General*-Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

(d)(2) *Engineering and work practice controls*. (i) Engineering and work practice controls shall be used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be used.

(d)(2)(ii) Engineering controls shall be examined and maintained or replaced on a regular schedule to ensure their effectiveness.

(d)(2)(iii) Employers shall provide handwashing facilities which are readily accessible to employees.

(d)(2)(iv) When provision of handwashing facilities is not feasible, the employer shall provide either an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. When antiseptic hand cleansers or towelettes are used, hands shall be washed with soap and running water as soon as feasible.

(d)(2)(v) Employers shall ensure that employees wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.

(d)(2)(vi) Employers shall ensure that employees wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible

following contact of such body areas with blood or other potentially infectious materials.

(d)(2)(vii) Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed except as noted in paragraphs (d)(2)(vii)(A) and (d)(2)(vii)(B) below. Shearing or breaking of contaminated needles is prohibited.

(d)(2)(vii)(A) Contaminated needles and other contaminated sharps shall not be bent, recapped or removed unless the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical procedure.

(d)(2)(vii)(B) Such bending, recapping or needle removal must be accomplished through the use of a mechanical device or a one-handed technique.

(d)(2)(viii) Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be:

(d)(2)(viii)(A) Puncture resistant;

(d)(2)(viii)(B) Labeled or color-coded in accordance with this standard;

(d)(2)(viii)(C) Leakproof on the sides and bottom; and

(d)(2)(viii)(D) In accordance with the requirements set forth in paragraph (d)(4)(ii)(E) for reusable sharps.

(d)(2)(ix) Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.

(d)(2)(x) Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or other potentially infectious materials are present.

(d)(2)(xi) All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

(d)(2)(xii) Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.

(d)(2)(xiii) Specimens of blood or other potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping.

(d)(2)(xiii)(A) The container for storage, transport, or shipping shall be labeled or color-coded according to paragraph (g)(1)(i) and closed prior to being stored, transported, or shipped. When a facility utilizes Universal Precautions in the handling of all specimens, the labeling/color-coding of specimens is not necessary provided containers are recognizable as containing specimens. This exception only applies while such specimens/containers remain within the facility. Labeling or color-coding in accordance with paragraph (g)(1)(i) is required when such specimens/containers leave the facility.

(d)(2)(xiii)(B) If outside contamination of the primary container occurs, the primary container shall be placed within a second container which prevents leakage during handling, processing, storage, transport, or shipping and is labeled or color-coded according to the requirements of this standard.

(d)(2)(xiii)(C) If the specimen could puncture the primary container, the primary container shall be placed within a secondary container which is puncture-resistant in addition to the above characteristics.

(d)(2)(xiv) Equipment which may become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary, unless the employer can demonstrate that decontamination of such equipment or portions of such equipment is not feasible.

(d)(2)(xiv)(A) A readily observable label in accordance with paragraph (g)(1)(i)(H) shall be attached to the equipment stating which portions remain contaminated.

(d)(2)(xiv)(B) The employer shall ensure that this information is conveyed to all affected employees, the servicing representative, and/or the manufacturer as appropriate, prior to handling, servicing, or shipping so that appropriate precautions will be taken.

(d)(3) Personal protective equipment-(i) Provision. When there is occupational exposure, the employer shall provide, at no cost to the employee, appropriate personal protective equipment such as, but not limited to, gloves, gowns, laboratory coats, face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices. Personal protective equipment will be considered “appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

(d)(3)(ii) Use. The employer shall ensure that the employee uses appropriate personal protective equipment unless the employer shows that the employee temporarily and briefly declined to use personal protective equipment when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance its use would have prevented the delivery of health care or public safety services or would have posed an increased hazard to the safety of the worker or co-worker. When the employee makes this judgment, the circumstances shall be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.

(d)(3)(iii) Accessibility. The employer shall ensure that appropriate personal protective equipment in the appropriate sizes is readily accessible at the worksite or is issued to employees. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

(d)(3)(iv) Cleaning, Laundering, and Disposal. The employer shall clean, launder, and dispose of personal protective equipment required by paragraphs (d) and (e) of this standard, at no cost to the employee.

(d)(3)(v) Repair and Replacement. The employer shall repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to the employee.

(d)(3)(vi) If a garment(s) is penetrated by blood or other potentially infectious materials, the garment(s) shall be removed immediately or as soon as feasible.

(d)(3)(vii) All personal protective equipment shall be removed prior to leaving the work area.

(d)(3)(viii) When personal protective equipment is removed it shall be placed in an appropriately designated area or container for storage, washing, decontamination or disposal.

(d)(3)(ix) Gloves. Gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with blood, other potentially infectious materials, mucous membranes, and non-intact skin; when performing vascular access procedures except as specified in paragraph (d)(3)(ix)(D); and when handling or touching contaminated items or surfaces.

(d)(3)(ix)(A) Disposable (single use) gloves such as surgical or examination gloves, shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.

(d)(3)(ix)(B) Disposable (single use) gloves shall not be washed or decontaminated for re-use.

(d)(3)(ix)(C) Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeling, torn,

punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

(d)(3)(ix)(D) If an employer in a volunteer blood donation center judges that routine gloving for all phlebotomies is not necessary then the employer shall:

(1) Periodically reevaluate this policy;

(2) Make gloves available to all employees who wish to use them for phlebotomy;

(3) Not discourage the use of gloves for phlebotomy; and

(4) Require that gloves be used for phlebotomy in the following circumstances:

(i) When the employee has cuts, scratches, or other breaks in his or her skin;

(ii) When the employee judges that hand contamination with blood may occur, for example, when performing phlebotomy on an uncooperative source individual; and

(iii) When the employee is receiving training in phlebotomy.

(d)(3)(x) Masks, Eye Protection, and Face Shields. Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

(d)(3)(xi) Gowns, Aprons, and Other Protective Body Clothing. Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated.

(d)(3)(xii) Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated (e.g., autopsies, orthopedic surgery).

(d)(4) *Housekeeping*. (i) General. Employers shall ensure that the worksite is maintained in a clean and sanitary condition. The employer shall determine and implement an appropriate written schedule for cleaning and method of decontamination based upon the location within the facility, type of surface to be cleaned, type of soil present, and tasks or procedures being performed in the area.

(d)(4)(ii) All equipment and environmental and working surfaces shall be cleaned and decontaminated after contact with blood or other potentially infectious materials.

(d)(4)(ii)(A) Contaminated work surfaces shall be decontaminated with an appropriate disinfectant after completion of procedures; immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or other potentially infectious materials; and at the end of the work shift if the surface may have become contaminated since the last cleaning.

(d)(4)(ii)(B) Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, shall be removed and replaced as soon as feasible when they become overtly contaminated or at the end of the workshift if they may have become contaminated during the shift.

(d)(4)(ii)(C) All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials shall be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.

(d)(4)(ii)(D) Broken glassware which may be contaminated shall not be picked up directly with the hands. It shall be cleaned up using mechanical means, such as a brush and dust pan, tongs, or forceps.

(d)(4)(ii)(E) Reusable sharps that are contaminated with blood or other potentially infectious materials shall not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.

(d)(4)(iii) Regulated Waste.

(d)(4)(iii)(A) Contaminated Sharps Discarding and Containment. (1) Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are:

(i) Closable;

(ii) Puncture resistant;

(iii) Leakproof on sides and bottom; and

(iv) Labeled or color coded in accordance with paragraph (g)(1)(i) of this standard.

(2) During use, containers for contaminated sharps shall be:

(i) Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., laundries);

(ii) Maintained upright throughout use; and

(iii) Replaced routinely and not be allowed to overfill.

(3) When moving containers of contaminated sharps from the area of use, the containers shall be:

(i) Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping;

(ii) Placed in a secondary container if leakage is possible. The second container shall be:

(A) Closable;

(B) Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and

(C) Labeled or color-coded according to paragraph (g)(1)(i) of this standard.

(4) Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous injury.

(d)(4)(iii)(B) Other Regulated Waste Containment. (1) Regulated waste shall be placed in containers which are:

(i) Closable;

(ii) Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;

(iii) Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard; and

(iv) Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

(2) If outside contamination of the regulated waste container occurs, it shall be placed in a second container. The second container shall be:

(i) Closable;

(ii) Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;

(iii) Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard; and

(iv) Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

(d)(4)(iii)(C) Disposal of all regulated waste shall be in accordance with applicable regulations of the United States, States and Territories, and political subdivisions of States and Territories.

(d)(4)(iv) Laundry.

(d)(4)(iv)(A) Contaminated laundry shall be handled as little as possible with a minimum of agitation. (1) Contaminated laundry shall be bagged or containerized at the location where it was used and shall not be sorted or rinsed in the location of use.

(2) Contaminated laundry shall be placed and transported in bags or containers labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard. When a facility utilizes Universal Precautions in the handling of all soiled laundry, alternative labeling or color-coding is sufficient if it permits all employees to recognize the containers as requiring compliance with Universal Precautions.

(3) Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through of or leakage from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior.

(d)(4)(iv)(B) The employer shall ensure that employees who have contact with contaminated laundry wear protective gloves and other appropriate personal protective equipment.

(d)(4)(iv)(C) When a facility ships contaminated laundry to a second facility which does not use Universal Precautions in the handling of all laundry, the facility generating the contaminated laundry must place such laundry in bags or containers which are labeled or color-coded in accordance with paragraph (g)(1)(i).

(e) *HIV and HBV Research Laboratories and Production Facilities*. (1) This paragraph applies to research laboratories and production facilities engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV. It does not apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissues, or organs. These requirements apply in addition to the other requirements of the standard.

(e)(2) Research laboratories and production facilities shall meet the following criteria:

(e)(2)(i) Standard microbiological practices. All regulated waste shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

(e)(2)(ii) Special practices.

(e)(2)(ii)(A) Laboratory doors shall be kept closed when work involving HIV or HBV is in progress.

(e)(2)(ii)(B) Contaminated materials that are to be decontaminated at a site away from the work area shall be placed in a durable, leakproof, labeled or color-coded container that is closed before being removed from the work area.

(e)(2)(ii)(C) Access to the work area shall be limited to authorized persons. Written policies and procedures shall be established whereby only persons who have been advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures shall be allowed to enter the work areas and animal rooms.

(e)(2)(ii)(D) When other potentially infectious materials or infected animals are present in the work area or containment module, a hazard warning sign incorporating the universal biohazard symbol shall be posted on all access doors. The hazard warning sign shall comply with paragraph (g)(1)(i) of this standard.

(e)(2)(ii)(E) All activities involving other potentially infectious materials shall be conducted in biological safety cabinets or other physical containment devices within the containment module. No work with these other potentially infectious materials shall be conducted on the open bench.

(e)(2)(ii)(F) Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing shall be used in the work area and animal rooms. Protective clothing shall not be worn outside of the work area and shall be decontaminated before being laundered.

(e)(2)(ii)(G) Special care shall be taken to avoid skin contact with other potentially infectious materials. Gloves shall be worn when handling infected animals and when making hand contact with other potentially infectious material is unavoidable.

(e)(2)(ii)(H) Before disposal all waste from work areas and from animal rooms shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

(e)(2)(ii)(I) Vacuum lines shall be protected with liquid disinfectant traps and high-efficiency particulate air (HEPA) filters or filters of equivalent or superior efficiency and which are checked routinely and maintained or replaced as necessary.

(e)(2)(ii)(J) Hypodermic needles and syringes shall be used only for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only needle-locking syringes or disposable syringe-needle units (i.e., the needle is integral to the syringe) shall be used for the injection or aspiration of other potentially infectious materials. Extreme caution shall be used when handling needles and syringes. A needle shall not be bent, sheared, replaced in the sheath or guard, or removed from the syringe following use. The needle and syringe shall be promptly placed in a puncture-resistant container and autoclaved or decontaminated before reuse or disposal.

(e)(2)(ii)(K) All spills shall be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials.

(e)(2)(ii)(L) A spill or accident that results in an exposure incident shall be immediately reported to the laboratory director or other responsible person.

(e)(2)(ii)(M) A biosafety manual shall be prepared or adopted and periodically reviewed and updated at least annually or more often if necessary. Personnel shall be advised of potential hazards, shall be required to read instructions on practices and procedures, and shall be required to follow them.

(e)(2)(iii) Containment equipment. (A) Certified biological safety cabinets (Class I, II, or III) or other appropriate combinations of personal protection or physical containment devices, such as special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals, shall be used for all activities with other potentially infectious materials that pose a threat of exposure to droplets, splashes, spills, or aerosols.

(e)(2)(iii)(B) Biological safety cabinets shall be certified when installed, whenever they are moved and at least annually.

(e)(3) HIV and HBV research laboratories shall meet the following criteria:

(e)(3)(i) Each laboratory shall contain a facility for hand washing and an eye wash facility which is readily available within the work area.

(e)(3)(ii) An autoclave for decontamination of regulated waste shall be available.

(e)(4) HIV and HBV production facilities shall meet the following criteria:

(e)(4)(i) The work areas shall be separated from areas that are open to unrestricted traffic flow within the building. Passage through two sets of doors shall be the basic requirement for entry into the work area from access corridors or other contiguous areas. Physical separation of the high-containment work area from access corridors or other areas or activities may also be provided by a double-doored clothes-change room (showers may be included), airlock, or other access facility that requires passing through two sets of doors before entering the work area.

(e)(4)(ii) The surfaces of doors, walls, floors and ceilings in the work area shall be water resistant so that they can be easily cleaned. Penetrations in these surfaces shall be sealed or capable of being sealed to facilitate decontamination.

(e)(4)(iii) Each work area shall contain a sink for washing hands and a readily available eye wash facility. The sink shall be foot, elbow, or automatically operated and shall be located near the exit door of the work area.

(e)(4)(iv) Access doors to the work area or containment module shall be self-closing.

(e)(4)(v) An autoclave for decontamination of regulated waste shall be available within or as near as possible to the work area.

(e)(4)(vi) A ducted exhaust-air ventilation system shall be provided. This system shall create directional airflow that draws air into the work area through the entry area. The exhaust air shall not be recirculated to any other area of the building, shall be discharged to the outside, and shall be dispersed away from occupied areas and air intakes. The proper direction of the airflow shall be verified (i.e., into the work area).

(e)(5) *Training requirements*. Additional training requirements for employees in HIV and HBV research laboratories and HIV and HBV production facilities are specified in paragraph (g)(2)(ix).

(f) *Hepatitis B vaccination and post-exposure evaluation and follow-up*-(1) General. (i) The employer shall make available the hepatitis B vaccine and vaccination series to all employees who have occupational exposure, and post-exposure evaluation and follow-up to all employees who have had an exposure incident.

(f)(1)(ii) The employer shall ensure that all medical evaluations and procedures including the hepatitis B vaccine and vaccination series and post-exposure evaluation and follow-up, including prophylaxis, are:

(f)(1)(ii)(A) Made available at no cost to the employee;

(f)(1)(ii)(B) Made available to the employee at a reasonable time and place;

(f)(1)(ii)(C) Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional; and

(f)(1)(ii)(D) Provided according to recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place, except as specified by this paragraph (f).

(f)(1)(iii) The employer shall ensure that all laboratory tests are conducted by an accredited laboratory at no cost to the employee.

(f)(2) *Hepatitis B Vaccination.* (i) Hepatitis B vaccination shall be made available after the employee has received the training required in paragraph (g)(2)(vii)(I) and within 10 working days of initial assignment to all employees who have occupational exposure unless the employee has previously received the complete hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.

(f)(2)(ii) The employer shall not make participation in a prescreening program a prerequisite for receiving hepatitis B vaccination.

(f)(2)(iii) If the employee initially declines hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the employer shall make available hepatitis B vaccination at that time.

(f)(2)(iv) The employer shall assure that employees who decline to accept hepatitis B vaccination offered by the employer sign the statement in appendix A.

(f)(2)(v) If a routine booster dose(s) of hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster dose(s) shall be made available in accordance with section (f)(1)(ii).

(f)(3) *Post-exposure Evaluation and Follow-up.* Following a report of an exposure incident, the employer shall make immediately available to the exposed employee a confidential medical evaluation and follow-up, including at least the following elements:

(f)(3)(i) Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred;

(f)(3)(ii) Identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law;

(f)(3)(ii)(A) The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented.

(f)(3)(ii)(B) When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.

(f)(3)(ii)(C) Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

(f)(3)(iii) Collection and testing of blood for HBV and HIV serological status;

(f)(3)(iii)(A) The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.

(f)(3)(iii)(B) If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

(f)(3)(iv) Post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service;

(f)(3)(v) Counseling; and

(f)(3)(vi) Evaluation of reported illnesses.

(f)(4) *Information Provided to the Healthcare Professional*. (i) The employer shall ensure that the healthcare professional responsible for the employee's Hepatitis B vaccination is provided a copy of this regulation.

(f)(4)(ii) The employer shall ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:

(f)(4)(ii)(A) A copy of this regulation;

(f)(4)(ii)(B) A description of the exposed employee's duties as they relate to the exposure incident;

(f)(4)(ii)(C) Documentation of the route(s) of exposure and circumstances under which exposure occurred;

(f)(4)(ii)(D) Results of the source individual's blood testing, if available; and

(f)(4)(ii)(E) All medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.

(f)(5) *Healthcare Professional's Written Opinion*. The employer shall obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

(f)(5)(i) The healthcare professional's written opinion for Hepatitis B vaccination shall be limited to whether Hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.

(f)(5)(ii) The healthcare professional's written opinion for post-exposure evaluation and follow-up shall be limited to the following information:

(f)(5)(ii)(A) That the employee has been informed of the results of the evaluation; and

(f)(5)(ii)(B) That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

(f)(5)(iii) All other findings or diagnoses shall remain confidential and shall not be included in the written report.

(f)(6) *Medical recordkeeping*. Medical records required by this standard shall be maintained in accordance with paragraph (h)(1) of this section.

(g) *Communication of hazards to employees*-(1) *Labels and signs*. (i) Labels. (A) Warning labels shall be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious material; and other containers used to store, transport, or ship blood or other potentially infectious materials, except as provided in paragraph (g)(1)(i)(E), (F) and (G).

(g)(1)(i)(B) Labels required by this section shall include the following legend:

BIOHAZARD

(g)(1)(i)(C) These labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.

(g)(1)(i)(D) Labels shall be by affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

(g)(1)(i)(E) Red bags or red containers may be substituted for labels.

(g)(1)(i)(F) Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use are exempted from the label requirements of paragraph (g).

(g)(1)(i)(G) Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment or disposal are exempted from the labeling requirement.

(g)(1)(i)(H) Labels required for contaminated equipment shall be in accordance with this paragraph and shall also state which portions of the equipment remain contaminated.

(g)(1)(i)(I) Regulated waste that has been decontaminated need not be labeled or color-coded.

(g)(1)(ii) Signs. (A) The employer shall post signs at the entrance to work areas specified in paragraph (e), HIV and HBV Research Laboratory and Production Facilities, which shall bear the following legend:

BIOHAZARD

(Name of the Infectious Agent)

(Special requirements for entering the area)

(Name, telephone number of the laboratory director or other responsible person.)

(g)(1)(ii)(B) These signs shall be fluorescent orange-red or predominantly so, with lettering and symbols in a contrasting color.

(g)(2) *Information and training*. (i) Employers shall ensure that all employees with occupational exposure participate in a training program which must be provided at no cost to the employee and during working hours.

(g)(2)(ii) Training shall be provided as follows:

(g)(2)(ii)(A) At the time of initial assignment to tasks where occupational exposure may take place;

(g)(2)(ii)(B) Within 90 days after the effective date of the standard; and

(g)(2)(ii)(C) At least annually thereafter.

(g)(2)(iii) For employees who have received training on bloodborne pathogens in the year preceding the effective date of the standard, only training with respect to the provisions of the standard which were not included need be provided.

(g)(2)(iv) Annual training for all employees shall be provided within one year of their previous training.

(g)(2)(v) Employers shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

(g)(2)(vi) Material appropriate in content and vocabulary to educational level, literacy. and language of employees shall be used.

(g)(2)(vii) The training program shall contain at a minimum the following elements:

(g)(2)(vii)(A) An accessible copy of the regulatory text of this standard and an explanation of its contents;

(g)(2)(vii)(B) A general explanation of the epidemiology and symptoms of bloodborne diseases;

(g)(2)(vii)(C) An explanation of the modes of transmission of bloodborne pathogens;

(g)(2)(vii)(D) An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan;

(g)(2)(vii)(E) An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;

(g)(2)(vii)(F) An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;

(g)(2)(vii)(G) Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;

(g)(2)(vii)(H) An explanation of the basis for selection of personal protective equipment;

(g)(2)(vii)(I) Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;

(g)(2)(vii)(J) Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;

(g)(2)(vii)(K) An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;

(g)(2)(vii)(L) Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident

(g)(2)(vii)(M) An explanation of the signs and labels and/or color coding required by paragraph (g)(1); and

(g)(2)(vii)(N) An opportunity for interactive questions and answers with the person conducting the training session.

(g)(2)(viii) The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

(g)(2)(ix) Additional Initial Training for Employees in HIV and HBV Laboratories and Production Facilities. Employees in HIV or HBV research laboratories and HIV or HBV production facilities shall receive the following initial training in addition to the above training requirements.

(g)(2)(ix)(A) The employer shall assure that employees demonstrate proficiency in standard microbiological practices and techniques and in the practices and operations specific to the facility before being allowed to work with HIV or HBV.

(g)(2)(ix)(B) The employer shall assure that employees have prior experience in the handling of human pathogens or tissue cultures before working with HIV or HBV.

(g)(2)(ix)(C) The employer shall provide a training program to employees who have no prior experience in handling human pathogens. Initial work activities shall not include the handling of infectious agents. A progression of work activities shall be assigned as techniques are learned and proficiency is developed. The employer shall assure that employees participate in work activities involving infectious agents only after proficiency has been demonstrated.

(h) *Recordkeeping*-(1) *Medical Records*. (i) The employer shall establish and maintain an accurate record for each employee with occupational exposure, in accordance with 29 CFR §1910.20.

(h)(1)(ii) This record shall include:

(h)(1)(ii)(A) The name and social security number of the employee;

(h)(1)(ii)(B) A copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination as required by paragraph (f)(2);

(h)(1)(ii)(C) A copy of all results of examinations, medical testing, and follow-up procedures as required by paragraph (f)(3);

(h)(1)(ii)(D) The employer's copy of the healthcare professional's written opinion as required by paragraph (f)(5); and

(h)(1)(ii)(E) A copy of the information provided to the healthcare professional as required by paragraphs (f)(4)(ii)(B),(C) and (D).

(h)(1)(iii) Confidentiality. The employer shall ensure that employee medical records required by paragraph (h)(1) are:

(h)(1)(iii)(A) Kept confidential; and

(h)(1)(iii)(B) Not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by this section or as may be required by law.

(h)(1)(iv) The employer shall maintain the records required by paragraph (h) for at least the duration of employment plus 30 years in accordance with 29 CFR §1910.20.

(h)(2) *Training Records*. (i) *Training records shall include the following information*:

(h)(2)(i)(A) The dates of the training sessions;

(h)(2)(i)(B) The contents or a summary of the training sessions;

(h)(2)(i)(C) The names and qualifications of persons conducting the training; and

(h)(2)(i)(D) The names and job titles of all persons attending the training sessions.

(h)(2)(ii) Training records shall be maintained for 3 years from the date on which the training occurred.

(h)(3) *Availability*. (i) The employer shall ensure that all records required to be maintained by this section shall be made available upon request to the Assistant Secretary and the Director for examination and copying.

(h)(3)(ii) Employee training records required by this paragraph shall be provided upon request for examination and copying to employees, to employee representatives, to the

Director, and to the Assistant Secretary.

(h)(3)(iii) Employee medical records required by this paragraph shall be provided upon request for examination and copying to the subject employee, to anyone having written consent of the subject employee, to the Director, and to the Assistant Secretary in accordance with 29 CFR §1910.20.

(h)(4) *Transfer of Records*. (i) The employer shall comply with the requirements involving transfer of records set forth in 29 CFR §1910.20(h).

(h)(4)(ii) If the employer ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the employer shall notify the Director, at least three months prior to their disposal and transmit them to the Director, if required by the Director to do so, within that three month period.

(h)(5) *Sharps injury log.* (i) The employer shall establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such manner as to protect the confidentiality of the injured employee. The sharps injury log shall contain, at a minimum:

(h)(5)(i)(A) The type and brand of device involved in the incident,

(h)(5)(i)(B) The department or work area where the exposure incident occurred, and

(h)(5)(i)(C) An explanation of how the incident occurred.

(h)(5)(ii) The requirement to establish and maintain a sharps injury log shall apply to any employer who is required to maintain a log of occupational injuries and illnesses under 29 CFR 1904.

(h)(5)(iii) The sharps injury log shall be maintained for the period required by 29 CFR 1904.6.

(i) *Dates* (1) *Effective Date*. The standard shall become effective on March 6, 1992.

(i)(2) The Exposure Control Plan required by paragraph (c) of this section shall be completed on or before May 5, 1992.

(i)(3) Paragraph (g)(2) Information and Training and (h) Recordkeeping shall take effect on or before June 4, 1992.

(i)(4) Paragraphs (d)(2) Engineering and Work Practice Controls, (d)(3) Personal Protective Equipment, (d)(4) Housekeeping, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, and (g)(1) Labels and Signs, shall take effect July 6, 1992.

APPENDIX A TO §1910.1030-HEPATITIS B VACCINE DECLINATION (MANDATORY)
I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Appendix V

HANDLING OF LAB SPECIMENS FOR PATHOLOGY

1. Mouth Pipetting / suctioning of blood or other potentially infectious materials is prohibited.

2. B.S.I. precautions will be used when handling all specimens. Specimens of blood or other potentially infectious materials will be placed in a container that prevents leakage during collection, handling, processing, storage, transport, and shipping.

(1) Lab specimen containers will be placed inside a closed leakproof bag or other container that is labeled with a biohazard symbol. All untreated specimens which are shipped outside this facility must also be labeled as a biohazard.

(2) If contamination of the outside of the primary container occurs, it will be placed inside a second leakproof container that is also labeled with the biohazard symbol.

(3) If the specimen could puncture the primary container, it will be placed inside a puncture resistant secondary container.

Appendix W

LINEN MANAGEMENT

General. According to CDC "even though soiled linen has been identified as a source of large numbers of certain pathogenic microorganisms, the risk of actual disease transmission is negligible. Rather than rigid procedures and specifications, hygienic and common-sense storage and processing of clean and soiled linen are recommended."

The following is DENTAC's common-sense approach" to linen management.

1. Definition.

a. Clean linen is all linen which has been processed by the laundry using the approved methods and has been through the transfer-receiving process in a manner that maintains cleanliness.

b. Contaminated / soiled linen is all linen from patient treatment areas which have a high potential for contamination by body fluids. All linen used in patient care will be handled as contaminated / soiled linen.

2. Procedures

a. Clean linen will be:

(1) Properly stored away from patient care in controlled access areas.

(2) Handled from laundry to patient in a manner which prevents contamination of linen.

(3) Sterilized for use in dental operatory as necessary.

b. Contaminated / soiled linen will be handled as follows:

(1) Placed inside a white linen bag with a red stripe around it or a red linen bag. The linen bags will be closed in a manner to prevent items from falling out. Soiled linen should be handled as little as possible. It should not be sorted or rinsed in patient areas. All soiled linen should be bagged at the location where it was used.

(2) To protect persons handling laundry, great care must be taken to assure that surgical instruments and other medical materials do not become mixed in with soiled linen. Proper PPE must be used by persons handling laundry that is contaminated.

(3) Soiled linen bags will be placed in each area's dirty linen area and will be delivered to linen exchange by DENTAC courier if the area is not located in the

hospital.

Appendix X

STERILIZATION

1. Sterilization is defined as the complete elimination of microbial viability, to include the killing of spores. All materials that come into contact with a patient during the course of dental treatment will be sterilized if it is at all possible to do so.

2. Sterilization will be accomplished by one of the following methods:

   a. Steam autoclaves.

   b. Dry heat sterilization.

   c. Chemical vapor sterilization.

3. Any dental instrument or material that penetrates the soft tissue, bone, or tooth structure of a patient will be sterilized or if not sterilizable, will be discarded following the completion of treatment on the individual in which penetration of the soft tissue, bone, or tooth structure occurred.

4. Disinfecting is defined as the elimination of pathogenic organisms. It differs from sterilization in that spores are not normally killed by disinfectants. Surfaces within the dental clinic and materials utilized in dental care that cannot be sterilized will be disinfected with an appropriate high level disinfectant acceptable for dental use.

5. Instruments will be scrubbed with soap and water or detergent, cleaned in the ultra sonic cleaner, or an instrument cleaner / washer prior to being either sterilized or disinfected. If the instrument is to be sterilized following scrubbing, it will be placed in the appropriate wrapping for sterilization, sealed, and sterilized. Following sterilization, it will be marked with the appropriate load control number and expiration date. If the instrument is to be disinfected following scrubbing / cleaning, it will be immersed in the disinfectant for at least the minimum time recommended by the manufacturer of the disinfectant. Instruments will then be rinsed and dried before patient contact.

6. Instruments to be sterilized will be wrapped or bagged in units designed for individual patient treatment rather than in bulk. Sterilization in bulk requires unwrapping prior to use and significantly increases the likelihood of cross contamination, either during unwrapping, during storage prior to use, or due to inadvertent contamination by the operator when additional instruments are needed during patient treatment.

7. Instruments for sterilization will be appropriately marked with the expiration date on the outside of the wrapping material according to directives or AR-19 and TB Med 266. Expired instruments will be rebagged and resterilized prior to their use.

8. Expiration of sterilized instruments will be determined as follows:

   a. No item should, at any time, be considered sterile for longer than 1 year, except for commercially prepared sterile items which will be considered sterile unless the integrity of the packaging material has been compromised, or the expiration date has been reached.

   b. Shelf life assumes proper humidity and protection from dust and aerosols during storage. Any loss of integrity of the wrapping materials, no matter how trivial, will require resterilization of the material prior to its use in patient care.

REFERENCE CHART FOR SHELF LIFE OF AUTOCLAVED WRAPS

WRAP MATERIAL	SHELF LIFE
1) Nonwoven, nylon, plastic and paper laminate.	1 year
2) Papers and wovens.	72 hours (3 days)
3) Paper and wovens placed in hermetically sealed or envelope (tape closed) protective covers (after a sufficient cooling period following the sterilization cycle). (large trays only)	1 year
4) Papers and wovens removed from hermetically sealed or enveloped protective covers and not opened or contaminated.	72 hours (3 days)

9. The sterilizers will be cleaned weekly and the cleaning will be annotated in the sterilizer log book.

10. Verification of Sterilization Procedures:

a. Sterilization in the dental clinic is normally done by steam autoclaving at 250 degrees F and 20 psi pressure for 30 minutes with a 15 minute drying cycle. Each item is tagged with an internal sterilization indicator and secured with steam pressure sensitive tape. When the sterilizing cycle is complete, sterile items will be stamped or marked with the date on which sterility expires in accordance with TB Med 266 and the guidelines as noted in paragraph 8 above. The load number, should the instruments need to be recalled, will also be noted on the outside of the wrapping.

b. Bacteriological spore testing will be conducted in accordance with TB Med 266. Negative growth reports indicate an effective sterilization procedure. These culture tests must be conducted a minimum of once a week. The results, along with the positive control, should be posted in a log book maintained solely for that purpose and for that sterilizer as well. The log book sheets with the recorded results of testing will be kept on file at least 12 months.

c. Should a positive growth report be returned from the laboratory, all instruments and packages with load numbers that correspond to the date of the positive culture will immediately be pulled from the storage areas, rewrapped, and resterilized prior to being used on another patient. In addition, all instruments and packages with load numbers preceding the positive test results back up to the last documented negative test results will be pulled from storage areas, rewrapped, and resterilized prior to being used on another patient. Instruments and packages with load control numbers post-dating the positive culture up to the next documented negative test result will also be pulled from storage areas, rewrapped, and resterilized prior to being used. This procedure will effectively remove all potential non-documentable non-sterile instruments from the possibility of use on a patient.

d. LOAD CONTROL IDENTIFICATION PROCEDURE:

(1) Labeling: All supplies subjected to autoclaving will be stamped or marked with a Load Control Number (LCN) after the sterilization process. The LCN consists of seven (7) digits as follows:

i. The first two number digit indicates the numerical designation of each autoclave, which will be clearly displayed on each unit.

ii. The third, fourth, and fifth digits indicate the Julian calendar date of the year, i.e. 001 to 365.

iii. The sixth and seventh digits indicate the number of times the autoclave was loaded and operated during a 24 hour period, i.e. 01, 02, 03, etc.

(2) A log book will be maintained for each autoclave with the following information:

a. Sterilizer number.

b. Date.

c. Load Control Number.

d. Expiration Date.

e. Contents of Load.

f. Operator's Name.

g. Results of Biological test.

(3) All packages will be visibly marked with an expiration date.

11. The following solutions are deemed acceptable for high level disinfection in the dental clinic.

a. High activity Iodophors. Examples are BIOCIDE and WESCODYNE. These agents are considered the material of choice unless it is determined that significant deterioration of instruments is encountered due to the corrosive nature of these solutions. These disinfectants are considered safe and effective as an immersion agent or as a spray or swabbing agent. They MUST be mixed and replaced exactly according to manufacturer's instruction.

b. Glutaraldehydes. These agents have been deemed safe and effective as immersion agents. They have not been deemed safe as a swabbing or spray agent due to the release of irritation vapors when used on open surfaces. (Therefore, they are NOT to be used as a surface disinfectant.) They may be used in closed containers as a disinfectant for impressions and prostheses.

c. Chlorine dioxide disinfectants. These agents are very effective as surface disinfectants. There are several on the market having a very low contact time (4 minutes). These agents are corrosive to sensitive parts on the chairs. Once good barrier protection devices are being used, which will protect these sensitive areas, a chlorine dioxide disinfectants can be recommended for use as a short acting surface disinfectant.

d. Sodium Hypochlorite (household bleach). This agent is considered effective when prepared fresh daily in a 1:10 dilution and may be used as either an immersion or a swabbing agent. It has not been deemed as a spray agent and it is known to harm skin and mucous membranes with prolonged contact. In addition, it has prominent corrosion effects on certain metal instruments and the strong odor may be objectionable to some individuals.

12. DHCW's engaged in sterilization and disinfection procedures of any type will take appropriate personal precautions by wearing gloves, masks, protective eyewear, and a protective overgarment (gown or apron). All HAZCOM requirements for these chemicals will be followed.

13. Dental Handpieces will be sterilized as per manufacturer's instructions.

14. Air / water syringe tips, ultrasonic scalers, electrosurgery tips, and acrylic light curing units should be sterilized or otherwise handled as per manufacturer's instructions.

STERILIZATION / INFECTION CONTROL (MONTHLY REPORTS)

1. PURPOSE: To ensure the DENTAC, Fort Carson, follows standard-universal precautions and sterilization techniques and the requirements of the U.S. Army Regulations, ADA guidelines, and OSHA regulations are met.

2. FORMAT: See attached INFECTION CONTROL MONTHLY INSPECTION CHECKLIST.

3. CONTENTS: Items to be monitored:

a. Proper training and orientation for all personnel as outlined in the Exposure Control Plan / Infection Control Plan.

b. Assured compliance with standard-universal precautions and sterilization standing operating procedures.

c. Proper management of contaminated waste.

d. Compliance with standing operating procedures in the dental laboratories.

4. PERSON RESPONSIBLE: Clinic's Infection Control Officer.

5. FREQUENCY: Monthly.

a. A report from each Clinic Infection Control Officer due to the DENTAC Infection Control Officer NLT one week prior to the monthly QA Meeting (normally the first Thursday of each month.).

b. The DENTAC Infection Control Officer will summarize the clinic reports and forward the summary to the QA Committee.

DENTAC QUALITY ASSURANCE COMMITTEE
FORT CARSON DENTAL ACTIVITY
STERILIZATION /INFECTION CONTROL (MONTHLY REPORT)

Dental Treatment Facility:_____

Date reported completed:_____Period of report:_____

A. UNIVERSAL PRECAUTIONS:	YES	NO
1. Are all personnel wearing surgical mask, protective eyewear with side shields, and gloves while treating patients?		
2. Are appropriate gowns / smocks utilized during procedures likely to result in blood or body fluid spatter?		
3. Are hands washed after removal of soiled gloves?		
4. Are gloves changed after each patient?		

5. Are disposable syringes, needles, scalpel blades and other sharps properly handled and disposed of in an approved container?
6. Are needles being recapped utilizing an approved recapping device / technique? (two handed techniques will **NOT** be allowed.)
7. Are all handpieces and burs sterilized after use?
8. Are handpieces being properly maintained?
9. Is only designated infectious waste being placed in red plastic bags?
10. Is sufficient Personal Protective Equipment available?
11. Is eyewear cleaned between patients?
12. Are dental records being handled during the course of patient treatment?
13. Are procedures for an accidental needle stick / sharps injury being followed?
14. Is the Exposure Control Plan / Infection Control Plan readily available to all personnel?

B. STERILE PACKS:

1. Are packs checked weekly for outdated packs?
2. Are all instruments, used on patients, properly packed and sterilized?
3. Are packs labeled with the correct expiration date?
4. Do all packs have an external indicator?
5. Do all packs have an internal indicator?
6. Are hinged instruments open (i.e. tips do not touch)?
7. Are sharp instruments protected in packs with gauze, cotton rolls, or rubber tubing so they will not pierce the packing material?
8. Are instruments properly cleaned?
9. Are expired packs present? (Explain if answer is yes.)

C. WORK INFECTION CONTROL: YES NO

1. Are dilute disinfectant solutions labeled and dated?
2. Are waterlines purged for 3 minutes at the beginning of each day? (Not required if a monitored self contained water system is being used.)
3. Are sterile / clean disposable supplies (gauze, cotton rolls, etc.) stored in clean covered containers?
4. Are headrest covers being used?
5. Is just one bracket cover used per patient?
6. Are drawers and cabinet shelves clean, orderly, and free of paper lining, inspected regularly and this inspection documented?
7. Are counters clean, free of debris, and disinfected daily?
8. Are heavy rubber nitrile latex gloves used when instruments are being scrubbed?
9. Is the amalgamator exterior clean and triturator empty?
10. Are water baths clean and stored empty?
11. Are suction screens and traps cleaned daily?
12. Are SHARPS containers disposed of properly?

D. STERILIZERS:

1. Are autoclave chambers cleaned weekly and free of buildup?
2. Are all sterilizers tested weekly with spore monitors?
3. Have any positive results of sterilizer spore monitors been noted this month? If so, note sterilizer number and action taken below. (Normal answer is No.)

E. LABORATORY:

1. Are impressions / appliances disinfected prior to entering or leaving the laboratory?
2. Are work benches disinfected according to clinic lab technique being used? (i.e. Clean or Standard lab)
3. Are ultrasonic cleaners covered? (This applies at clinic level also.)
4. Are personnel following the food / drink SOP by not eating or drinking in the lab?

F. REFRIGERATORS:

1. Are refrigerators for dental materials free of food and drink?

G. RESPONSE TO NEGATIVE REPLIES AND COMMENTS: (Items A12, B9 and D3 are correct with a NO reply. If Yes is answered, respond.)

1. All replies should be explained by letter and number of the item.
2. Any comments on Infection Control may be noted also. (Use attachments if needed.)

_____

_____

SIGNATURE:_____ _____

(DENTAC QA Form 9) Clinic NCOIC Clinic Infection Control Officer

DENTAC QUALITY ASSURANCE COMMITTEE
FORT CARSON DENTAL ACTIVITY
STERILIZATION /INFECTION CONTROL (CLINIC SUMMARY REPORT)

MONTH_____ YEAR_____

1. Monthly Summation of Clinic Reports:

DC #1:_____

_____

_____

LARSON DC:_____

_____

_____

SMITH DC:_____

_____

_____

DEPARTMENT OF THE ARMY

HOSPITAL DC:_____
_____
_____

2. Infection Control Supply Shortages / Problems:_____
_____

3. Noted areas of common Non-compliance:_____
_____

4. Suggested Revision to EXPOSURE CONTROL PLAN / INFECTION CONTROL PLAN to Gain Compliance:_____
_____
_____

5. Other Comments / Suggestions:_____
_____

SIGNATURE:_____ DATE:_____
DENTAC Infection Control Officer

Appendix Z

SCHEDULE AND METHOD OF IMPLEMENTATION

1. Method of Implementation. Refer to the text of the EXPOSURE CONTROL PLAN / INFECTION CONTROL PLAN.

2. Schedule of Implementation. Date:
All items have been put into operation by the OSHA deadline.

a. Exposure Control Plan / Infection Control Plan — October 2001 (current)

To be reviewed:
October 2002

b. Methods of Compliance

(1) Universal Precaution / Body Substance Isolation — In Effect

(2) Engineering and Work Practice Controls — In Effect

(3) Personal Protective Equipment — In Effect

(4) Housekeeping — In Effect

(5) Laundry In Effect

c. Hepatitis B Vaccination and Post Exposure Evaluation and Follow-Up In Effect

d. Communication of Hazards

(1) Labels and Signs In Effect

(2) Information and Training In Effect

(3) Recordkeeping In Effect